JULY 11, 1955

What About Passenger Subsidies? . . . p. 29

RAILWAY AGE

One of Five Simmons-Boardman Railway Publications

IN THIS ISSUE:

Fewer Tracks with Modern Signaling

IC's "High Level" Management Training

GN's Diesel Shop Conversion

How RRs Boost Anthracite Sales

Judge Mitchell On Deregulation

PREVENT LOSS of LADING!

ADJUSTABLE LOCKS

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THE WINE RAILWAY APPLIANCE CO. TOLEDO 9, OHIO

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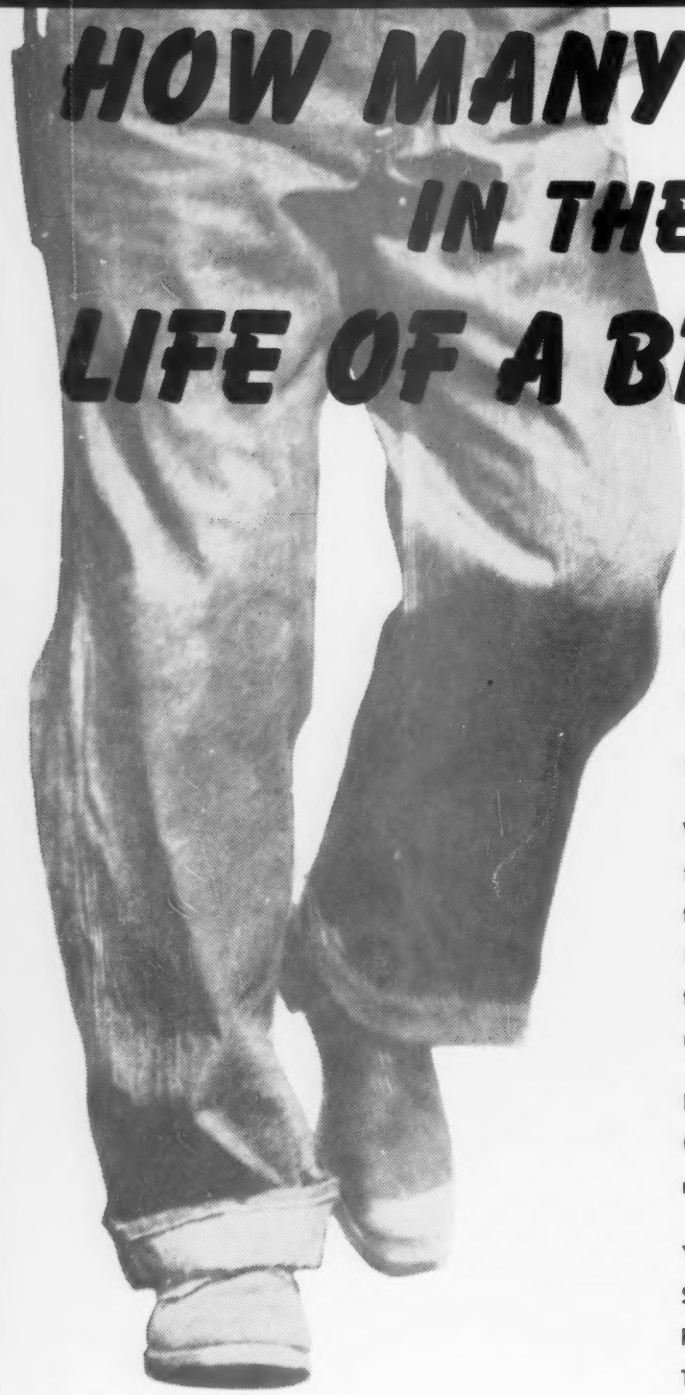

The railroads use millions of time-consuming, money-wasting steps each year carrying freight car brake beams into reclamation plants for dismantling and reassembling—then back again to the stores department.

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Here's why—

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Economical maintenance is only one of the many TRUSLOCK features that have sold this premium brake beam to 72 railroads and private car lines.

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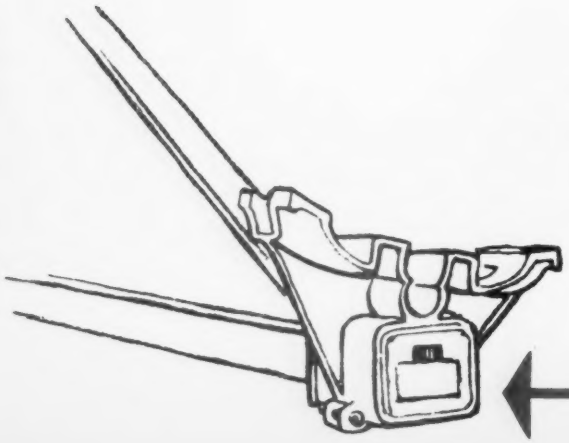

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The Buffalo Brake Beam with the Quick-Change Brake Head

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You can give Bethlehem's Hook Twin Tie Plates a number of different jobs with equal success. These simple plates with the hook forged right in will anchor any frog on your system, no matter what tie position, or what the angle or type of frog.

You can also use them to hold down switch closure rails, tee guard rails, graduated riser switches, as well as tongue switches and mates. And, as in the picture, you'll find Hook Twin Tie Plates excellent for use with high- or acute-angle crossings. Here, the engineers said they preferred Hook Twins over the base plate normally furnished with the crossing, because of their easy adaptability.

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July 11, 1955 **Vol. 139, No. 2**

Week at a Glance

Net income of Class I roads in May totaled an estimated $86 million, more than twice the $40 million reported for May 1954. For the first five months of 1955, net income is estimated at $329 million, compared with $172 million in the like 1954 period. 9

Extension of retirement benefits for railroad employees' wives and widows was passed July 5 by the House of Representatives. The bill, which was opposed by the Railroad Board, now goes to the Senate for its consideration. 10

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Modern signaling means fewer tracks. Elimination of multiple trackage reduces the need for relaying rail, saves on annual maintenance and produces handsome returns in the form of salvage. 30

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A railroad becomes a classroom — the how and why of the IC's educational program. 37

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Only the shell is the same at the GN's recently modern-

NEW! HYATT COMMUTATOR-END TRACTION MOTOR ROLLER BEARING

CHECK THESE ADVANTAGES:

- No rubbing contact between cages and race flanges
- Improved flow of lubrication
- New treated, roller-riding, steel cage
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A worthy running mate for the famous Hyatt pinion-end bearing . . . The improved HYATT pinion-end bearing, introduced two years ago, has created a demand for an equally advanced design to replace present commutator-end bearings—*and here it is!*
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HYATT ROLLER BEARINGS

RUNNING MATE OF FASTER FREIGHT

Current Statistics

Operating revenues, five months	
1955	$3,945,223,671
1954	3,790,720,476
Operating expenses, five months	
1955	$3,000,869,341
1954	3,060,775,802
Taxes, five months	
1955	$ 420,321,221
1954	363,844,808
Net railway operating income, five months	
1955	$ 420,797,314
1954	263,278,188
Net income, estimated, five months	
1955	$ 329,000,000
1954	172,000,000
Average price railroad stocks	
July 5, 1955	98.40
July 6, 1954	67.69
Carloadings, revenue freight	
Twenty-five weeks, 1955	17,301,979
Twenty-five weeks, 1954	15,883,267
Average daily freight car surplus	
Wk. ended June 25, 1955	5,052
Wk. ended June 26, 1954	73,571
Average daily freight car shortage	
Wk. ended June 25, 1955	12,107
Wk. ended June 26, 1954	1,237
Freight cars on order	
June 1, 1955	16,886
June 1, 1954	15,615
Freight cars delivered	
Five months, 1955	14,096
Five months, 1954	20,952
Average number of railroad employees	
Mid-May 1955	1,049,114
Mid-May 1954	1,062,414

RAILWAY AGE IS A MEMBER OF ASSOCIATED BUSINESS PUBLICATIONS (A.B.P.) AND AUDIT BUREAU OF CIRCULATIONS (A. B. C.) AND IS INDEXED BY THE INDUSTRIAL ARTS INDEX, THE ENGINEERING INDEX SERVICE AND THE PUBLIC AFFAIRS INFORMATION SERVICE. RAILWAY AGE, ESTABLISHED IN 1856, INCORPORATES THE RAILWAY REVIEW, THE RAILROAD GAZETTE, AND THE RAILWAY AGE GAZETTE. NAME REGISTERED IN U. S. PATENT OFFICE AND TRADE MARK OFFICE IN CANADA.

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Week at a Glance CONTINUED

ized locomotive repair and overhaul shop at Spokane, Wash. 41

Updating regulation was urged by IC Commissioner Mitchell as he told the AAR Accounting Division that *transportation* is not now regulated—only a segment is. 46

BRIEFS

Charles L. Patterson, vice-president, in turn, of the Lehigh Valley, the Duluth, Missabe & Iron Range, and the Bessemer & Lake Erie, has accepted the chairmanship of the New York City Transit Authority, the top organization operating subways and other transit services in New York.

The Metropolitan Rapid Transit Commission has been completed by the appointment of five New Jersey members to serve with those already appointed from New York. This group will undertake a study of commutation service and other traffic problems in New York City and suburban areas in New Jersey.

A bonus for big shippers is being offered patrons of the British Railways. For each £5,000 a customer spends annually for freight charges—that's about $14,100—he is allowed to buy a commutation ticket for any executive or employee at a discount of about 25%.

Baby strollers are now being provided without charge at all United Air Lines major terminals. The idea is to allow a mother freedom to roam around in terminals without having to carry her child. A free baby kit containing bibs, powder and other essentials, is also provided aboard planes for each traveling infant.

Everything about the St. Lawrence Seaway is shrinking — except its cost to U. S. taxpayers. Now seaway promoters, apparently less sure of their rosy promises, reportedly are warning lakes cities not to expect too much in the way of increased traffic—and not to spend too much for new docks and harbor facilities to handle it.

JACKSON TRACK MAINTAINER

The evidence of this machine's great superiority as a means of both putting up and maintaining track of finest quality — in any ballast, under ALL conditions — is so preponderant that we confidently predict neither you nor any track chief who possesses the complete facts will specify any other. By all means write, wire or phone for complete information before making any commitments.

Acquirement plans to suit your needs.

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Week at a Glance CONTINUED

User charges on inland waterways have been recommended to Congress by the Commission on Organization of the Executive Branch of the Government, the so-called Hoover Commission, which was headed by former President Herbert Hoover. The commission would have the charges fixed by the ICC on a level "sufficient to cover maintenance and operation" of the waterway facilities. It would exempt only "smaller pleasure craft." The recommendation was in the commission's report on Water Resources and Power, one of the last it made before going out of existence June 30.

"Most important of the Task Force recommendations as to navigation" was what the Hoover Commission said when it made the user charge proposal its own. The commission also referred to Task Force findings that most traffic on inland waterways is private and contract carriage of bulk commodities, only a "nominal number" of the operators being common carriers "even in name." It was also found that "there is no distinguishing fact, theory or principle to support user charges for the Panama Canal . . . which does not equally support user charges for inland waterways."

How diversion of mail traffic can affect rail passenger service is pointed up by the Reading's announcement that, on July 18, it will cut its Monday-through-Saturday schedule between Allentown, Pa., and Harrisburg from three trains daily to one. The cut is attributed directly to transfer, July 1, of mail from the railroad to highway carriers; the Reading's resulting loss of mail revenue will approximate $400,000 a year—two-thirds of all revenue earned on the six trains.

Power to override state commissions to permit abandonment of unprofitable intrastate passenger service is not vested in the ICC, the commission has been advised. The advice came from Examiner Thomas E. Pine in a proposed report in the case (No. 31566) wherein the New Jersey & New York is undertaking to have the commission override the Board of Public Utility Commissioners of New Jersey by issuing an order requiring discontinuance of a train because its operation is an "undue burden" on interstate commerce.

Reading piggyback service will be extended, effective July 15, to include Wilmington, Del., and some 170 Pennsylvania communities, roughly within the area extending north and east of Wilmington as far as Lebanon, Lancaster, Pottsville, Allentown and Fairless. Second-morning delivery is scheduled between this territory and Chicago and St. Louis, and third-morning delivery between the same area and points in Minnesota and Wisconsin.

The Defense Transport Administration terminated its official existence July 1. Such functions as remained within the wartime emergency organization's purview were transferred to the Interstate Commerce Commission by order of Commissioner Clarke, who also was serving as administrator of the DTA. Its principal remaining responsibility has been to process tax amortization requests and mobilization planning initiated in the segments of the transportation industry under ICC regulation.

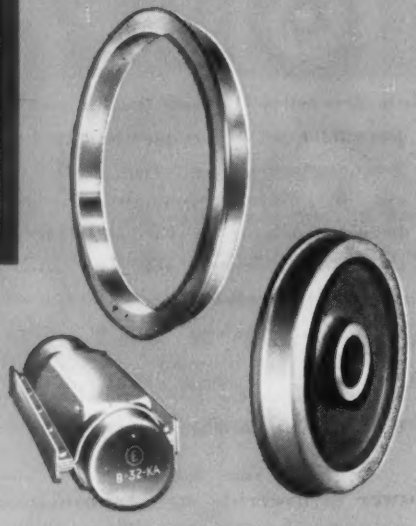
Another Canadian railroad line is reported to be under consideration in Ottawa, since government financial support is regarded as essential to its early construction. It would extend some 400 miles north from a point on the Northern Alberta to the south shore of Great Slave Lake, far up in the sparsely developed Northwest Territories. Immediate impetus to the proposal is the planned development of immense deposits of lead-zinc ores.

A "Secret" Weapon No One Can Steal! By Hungerford

We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting on your office and shop bulletin boards, or a cut for your company magazine, at cost.

Edgewater Steel Company

PITTSBURGH, PA.



Serving America's Railroads

ROLLED STEEL TIRES
with ROLLED STEEL WHEELS
AND DRAFT GEARS

May Net Climbed $46 Million

AAR estimate of $86 million more than doubles May 1954 figure—Net operating income up $43 million

Estimated net income for Class I roads in May, after interest and rentals, was $86 million, more than double the $40 million reported for May 1954.

The monthly statement of the Bureau of Railway Economics, Association of American Railroads, showed net railway operating income for May, before interest and rentals, was $101,242,550 compared with $58,296,623 for the same month last year. For the first five months of 1955 net railway operating income, before interest and rentals, was $420,797,314 as against $263,278,188 for the same period in 1954.

CLASS I RAILROADS—UNITED STATES

	1955	1954
Month of May		
Total operating revenues	$ 850,366,881	$ 762,187,183
Total operating expenses	634,896,821	614,712,001
Operating ratio—percent	74.66	80.65
Taxes	92,976,244	67,683,972
Net railway operating income (Earnings before charges)	101,242,550	58,296,623
Net income, after charges (estimated)	86,000,000	40,000,000
Five Months ended May		
Total operating revenues	$3,945,223,671	$3,790,720,476
Total operating expenses	3,000,869,341	3,060,775,802
Operating ratio—percent	76.06	80.74
Taxes	420,321,221	363,844,808
Net railway operating income (Earnings before charges)	420,797,314	263,278,188
Net income, after charges (estimated)	329,000,000	172,000,000

In the 12 months ended May 1955, the rate of return averaged 3.87% compared with 3.48% for the year ended May 1954.

The AAR reported that, due to labor difficulties, four roads operating in the Southern Region have been unable to file returns for the month of May. The comparisons in the report, therefore, are exclusive of returns for those roads for the months January through May of both 1954 and 1955.

Net income for the first five months of 1955, after interest and rentals, was estimated at $329 million compared with $172 million for the same period last year.

Gross in May 1955 was put at $850,366,881 as against $762,187,183 in 1954. For the first five months of 1955, gross was $3,945,223,671, where it was $3,790,720,476 for the same period last year, an increase of 4.1%. Operating expenses came to $3,000,869,341 for the first five months this year as compared with $3,060,775,802 in the corresponding 1954 period, a 2% decrease.

Sixteen Class I roads failed to earn interest and rentals in the first five months of 1955, of which six were in the Eastern district, three in the Southern region and seven in the Western district.

Freight Car Loadings

Because of the July 4 holiday, loadings of revenue freight for the week ended July 2 were not available as this issue went to press.

Loadings of revenue freight for the week ended June 25 totaled 799,472 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, June 25

District	1955	1954	1953
Eastern	133,478	113,700	137,964
Alleghany	155,882	131,218	167,690
Pocahontas	59,896	50,138	59,496
Southern	122,832	116,476	125,234
Northwestern	133,133	115,451	133,571
Central Western	131,900	125,102	130,449
Southwestern	62,351	61,075	64,046
Total Western Districts	327,384	301,628	328,066
Total All Roads	799,472	713,160	818,450
Commodities:			
Grain and grain products	58,143	63,928	60,023
Livestock	5,546	5,458	6,971
Coal	133,345	119,472	142,218
Coke	11,793	7,396	13,710
Forest Products	48,313	37,910	47,101
Ore	88,274	71,588	93,551
Merchandise l.c.l.	67,173	60,574	66,756
Miscellaneous	386,885	346,834	388,120
June 25	799,472	713,160	818,450
June 18	785,425	707,237	812,578
June 11	786,707	697,583	797,252
June 4	713,673	612,314	775,489
May 28	790,176	689,292	786,755
Cumulative total, 25 weeks	17,301,979	15,883,267	18,363,775

In Canada.—Carloadings for the seven-day period ended June 21 totaled 86,089 cars, compared with 84,549 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
June 21, 1955	86,089	31,643
June 21, 1954	76,014	27,677
Cumulative Totals:		
June 21, 1955	1,772,338	768,463
June 21, 1954	1,640,843	695,376

ICC Bureau Compares Gas Marketed, Coal Hauled

An indication of the impact of increased usage of natural gas on railroad revenues derived from coal movements was offered by the ICC's Bureau of Transport Economics and Statistics in the June issue of "Transport Economics."

The report shows that in 1939 the marketed production of natural gas amounted to the equivalent of 101.6 million tons of bituminous coal. By 1950 this had increased to 257.7 million tons and, according to preliminary figures, to 357 million tons last year.

Had railroads carried those coal equivalents in those three years, their revenues would have been increased by $226.8 million in 1939, $796.9 million in 1950 and $1,153.1 million in 1954, according to the bureau's comparison. Revenues for bituminous movements by Class I roads in those years were reported as $580.2 million,

FRED Q. TREADWAY (right), general advertising manager for the Southern Pacific, has received a special gold-medal award from the Art Directors Club of San Francisco for "having contributed most toward advancement of good design and art in advertising." Robert Freeman, club president, made the presentation. The award recognizes outstanding creative work in advertising, and Mr. Treadway was named winner in a poll of the club's membership.

$1,118.5 million and $961.7 million, respectively.

However, it was pointed out that the comparison was "not made to indicate that such natural gas production has displaced coal which would have produced rail revenues to the amount shown, but only to stress the relative size and importance of such gas marketings." Additionally, the bureau reminds, "much of the coal production does not move by rail and in any case, natural gas is used for other purposes than as a substitute for bituminous coal." The report shows, however, that bituminous coal tonnage originated on Class I roads fell to a postwar low of 297.7 million last year.

The bureau goes on to show that where energy supplied by marketed natural gas represented about 25% of that produced by bituminous coal and lignite in 1939, this proportion increased to about 50% in 1950 and to 91% in 1954.

Gas energy, expressed in British thermal units, produced in 1939 came to 2,663 trillion, rose to 6.753 trillion in 1950 and to 9.353 trillion in 1954. Energy derived from bituminous and lignite for those years was 10,345 trillion Btu's in 1939, 13,527 trillion Btu's in 1950 and 10,270 trillion Btu's in 1954.

It Cost $1.44 to Get $1 Of Diner Revenue in 1954

It cost Class I railroads $1.44 to get $1 of diner and buffet-service revenue last year. That compared with $1.38-for-$1 in 1953.

The figures, expressed in diner-expense-to-revenue ratios, were reported by the ICC's Bureau of Transport Economics and Statistics in its "Transport Economics." The compilation included the accompanying table showing results of diner and buffet-service operations on railroads reporting over $1,000,000 in 1954 revenues from such operations.

In Congress

House Passes Retirement Bill Extending Benefits

The House of Representatives on July 5 passed a bill that was opposed by the Railroad Retirement Board broadening the benefits for railroad employes' wives and widows.

Passed under suspension of House rules with a two-thirds majority vote, the bill (H.R. 4744) was forwarded to the Senate for its consideration.

It consists of four major provisions: One, to increase the maximum benefits of a railroad worker's spouse from the $40 limit now to $50.50 on enactment of the bill and to $54.30 in 1956; two, to enable annuitants to draw both railroad retirement and social security benefits where eligible for both; three, to exempt from federal attachment or state taxes, benefits received under Railroad Retirement and Unemployment Insurance Acts; and, four, to place all positions to which individuals are appointed by the Railroad Retirement Board under Civil Service.

Representative Oren Harris, Democrat of Arkansas, chairman of the transportation subcommittee of the House Committee on Interstate and Foreign Commerce, stated in discussion of the bill that it will increase the cost of the railroad benefits about $26 million a year and "would increase the present indicated deficit (in the retirement fund) of $51 million a year to about $76 million, in the long run."

This was the same estimate made by the Retirement Board in a letter to the committee which was introduced in the House discussion. Raymond J. Kelly, board chairman, and F. C. Squire joined in a majority report in which they recommended that "no favorable consideration be given to the bill." H. W. Harper, the third board member, filed a dissent in which he supported the bill. The Bureau of the Budget recommended against the last three main provisions of the bill and urged the legislators to give careful consideration to the first. The Civil Service Commission advised the committee it could not recommend the legislation because of objections to the last provision.

Labor & Wages

Emergency Board Named In REA Labor Dispute

President Eisenhower on July 1 signed an executive order establishing a three-man emergency board to investigate a labor dispute between the Railway Express Agency and the Teamsters Union.

Named to the board were Robert G. Simmons, chief justice of the Nebraska Supreme Court; Morrison Handsaker, professor of economics, Lafayette College; and Benjamin C. Roberts, an attorney with offices at 60 Broad Street, New York City.

The dispute involves demands by the union for wage increases, rule changes, additional vacation time and a health and welfare plan. REA employes in the New York City area were reported seeking pay hikes of 40 cents an hour. Employes elsewhere sought increases of 25-cents an hour.

The emergency board has until July 30 to make a report on the dispute to the President. A strike threatened for July 5 by the International Brotherhood of Teamsters, AFL, has been put off at least until then.

Traffic

Third Quarter Loadings Predicted Up by 10%

An increase of 10.4% in freight car car loadings in the third quarter of 1955 compared with the same period for last year has been forecast by the 13 Regional Shippers Advisory Boards.

On the basis of estimates made by the various boards, loadings of the 32 principal commodity groups will total 7,515,231 cars in the third quarter this year compared with 6,805,819 cars for the third quarter of 1954.

Dining and Buffet Revenues and Expenses—1954, 1953

(Dollar items in thousands)

District, region and railway	Dining and buffet revenues (Account No. 131)		Dining and buffet expenses (Account No. 441)		Ratio of expenses to revenues (Per cent)	
	1954	1953	1954	1953	1954	1953
Eastern district						
N.Y., N.H. & Hartford	$2,872	$2,880	$3,071	$2,993	106.9	103.9
New York Central	8,511	9,387	10,319	11,349	121.2	120.9
Baltimore & Ohio	2,510	2,588	3,661	3,892	145.9	150.4
Pennsylvania	9,315	10,076	11,204	12,120	120.3	120.3
Pocahontas region						
Chesapeake & Ohio	1,049	1,084	1,570	1,700	149.6	156.8
Southern region						
Atlantic Coast Line	2,017	2,149	2,450	2,617	121.5	121.8
Louisville & Nashville	963	1,071	1,334	1,390	138.5	129.8
Illinois Central	1,714	1,940	2,353	2,542	137.3	131.0
Seaboard Air Line	1,258	1,465	1,831	2,106	145.6	143.8
Southern	1,706	1,891	2,126	2,284	124.6	120.8
Western district						
Chicago & No. Western	1,976	2,067	3,322	3,213	168.1	155.5
C., M., S.P. & Pac.	1,964	2,028	2,933	2,867	149.3	141.4
Great Northern	1,612	1,737	2,860	2,970	177.4	170.9
A., T. & S.F. and Affiliated Cos.	6,327	7,209	11,022	11,395	174.2	158.1
C. B. & Q.	2,195	2,396	3,201	3,223	145.8	134.5
C. R. I. & P.	1,817	1,962	2,917	2,991	160.6	152.4
Southern Pacific	5,364	6,184	7,944	8,208	148.1	132.7
Union Pacific and leased lines	4,887	5,360	9,943	9,761	203.5	182.1
Missouri Pacific	1,077	1,171	1,247	1,329	115.8	113.5
Texas & N. O.	812	915	1,201	1,268	147.9	138.6
Northern Pacific	1,207	1,180	1,714	1,715	142.0	145.4

Each of the boards, for the first time since early 1951, predicted an increase in loadings over the corresponding quarter of the preceding year.

The accompanying tabulation shows actual loadings for each district in the third quarter of 1954, predicted loadings for the coming quarter and percentages of changes.

The boards expect an increase in the third quarter of 1955, compared with the same period a year ago, in the loadings of 28 of the listed commodities and a decrease in four. Commodities for which increases are predicted include:

Automobiles and trucks, 44.1%; ore and concentrates, 30.3%; vehicle parts, 20.5%; citrus fruits, 19.8%; iron and steel, 19.5%; agricultural implements and vehicles other than automobiles, 19.1%; lumber and forest products, 16.6%; potatoes, 12.3%; metals other than iron and steel, 10.8%; brick and clay products, 10.1%; frozen foods, fruits and vegetables, 9.5%; lime and plaster, 9.2%; coal and coke, 8.7%; paper, paper board and prepared roofing, 7.3%; gravel, sand and stone, 7%; machinery and boilers, 7%; and food products in cans and packages, 6.3%.

Commodities for which decreases are forecast include: Hay, straw and alfalfa, 4.9%; fertilizers of all kinds, 2.4%; cotton, 1.8%; and all grain, 1.2%.

Shippers Advisory Board	Actual Loadings, Third Quarter, 1954	Estimated Loadings, Third Quarter, 1955	Percentage Increase
Atlantic States	655,351	709,884	8.3
Allegheny	660,727	770,537	16.6
Ohio Valley	727,512	836,690	4.9
Southeast	890,621	919,020	4.4
Great Lakes	515,587	625,903	21.4
Central Western	247,921	274,361	10.7
Midwest	815,135	870,831	6.8
Northwest	667,686	789,309	18.2
Trans-Missouri-Kansas	371,256	375,177	1.1
Southwest	494,375	504,786	2.1
Pacific Coast	372,000	423,922	13.9
Pacific Northwest	239,003	312,673	30.8
TOTAL	6,805,819	7,515,231	10.4

Wanted: "EFS" Cars

A baking industry traffic manager suggests how more box cars can be suited to food industry's needs—and kept that way

A host of ideas to make box cars more suitable for handling edible foods is currently being considered by the Association of American Railroads.

The ideas first appeared in a report to the executive committee of the Southwest Shippers Advisory Board. The report was prepared by R. R. Rabon, traffic manager of Campbell Taggart Associated Bakeries, Inc., of Dallas, Tex., based on an independent survey of the nation's box car situation he recently conducted in 11 of the 13 shipper board districts.

To check the feasibility of his recommendations, the board, through its railroad contact committee, has requested C. A. Naffziger, director of the AAR's Freight Loss and Damage Prevention Section, to consult with Mr. Rabon. Mr. Naffziger, in turn, has asked W. M. Keller, executive vice-chairman and director of research of the Mechanical Division of the AAR, to work with him on the project.

Here is what Mr. Rabon suggests:

(1) Find out from shippers how many cars will be needed annually with smooth interior finish, and what interior dimensions are preferred.

(2) Eliminate both from new car construction and old car repairs any use of smooth-shanked nails. Use only barbed nails, driving screws, clutch head screws and similar fasteners which will not work loose in transit.

(3) Consider use of plywood panels instead of narrow wood sheathing.

(4) Rough sand all wood surfaces to a height of six feet.

(5) Use odorless, stainless caulking in countersinks of boltheads in decking.

(6) Use slotted steel door post protection to a height of six feet to prevent mutilation of sidewalls when steel strapping is used.

(7) Use plywood in ceilings, or some insulating material with a smooth surface to which bulk lading will not adhere.

(8) Use only recessed metal plates in doorways to provide a smooth continuous deck surface.

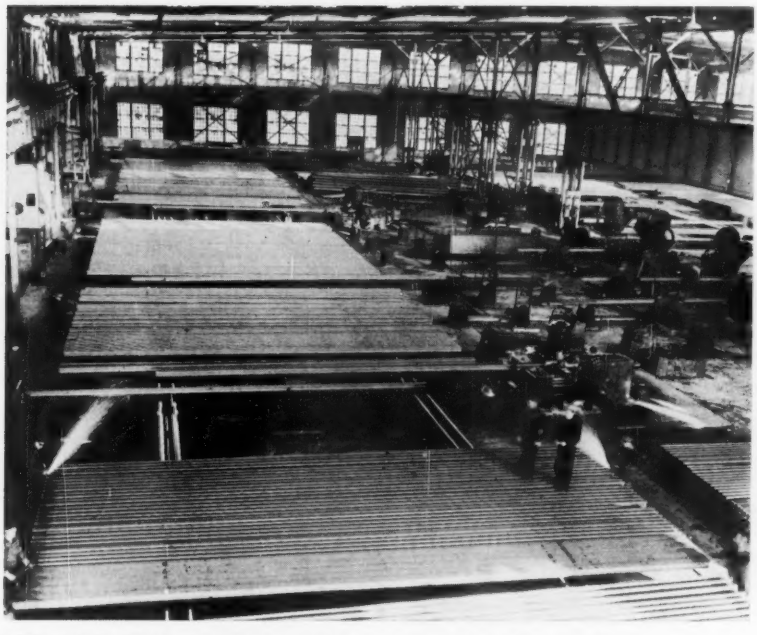
(9) Consider coating decking, sidewalls and ends to a height of six feet with the modified and odorless cocooning process No. 801.

Training Programs— Mr. Rabon also suggests employee educational and training programs for:

- Repair track personnel, toward better carpentry on interior finishes;
- Car cleaning personnel, so correct agents and methods of cleaning, deodorizing, neutralizing and sanitizing will be employed;
- Car inspectors, toward more rigid inspection of new and newly repaired cars;
- Personnel who grade and card cars for edible food shipments; and
- Damage inspectors, so corrective measures can be pinpointed from damage reports.

"EFS" Car—Mr. Rabon proposes that cars set aside for edible food service be boldly painted on the outside with large lettering, "EFS," and the words "Edible Food Service." He also asks a special stenciled warning for the interior prohibiting odoriferous or toxic lading and the use of staples, tacks or nails in the decking or sheathing. He calls for a special policing system that would limit use of such cars to loading of flour, sugar, cereals, bakery products, salt, powdered milk, rice and beans, except on approval of a carrier's superintendent of transportation; and urges frequent use of impact recorders on "EFS" cars so they will become associated with careful handling in the minds of operating personnel.

Mr. Rabon further suggests that new techniques be explored in an attempt to gain more suitable interior walls and



THIS NEW RAIL FINISHING MILL, recently installed by Dominion Steel & Coal Corp. at Sydney, N.S., was planned after the company's officers had inspected most modern practice in leading U.S. and European mills. It is from this facility that the Pacific of Mexico is receiving rail and fittings as a part of its $26-million rail program (*Railway Age*, May 30, page 35).

decking. He proposes, for example bonding plywood with marine adhesives and then bonding $\frac{1}{8}$-in. steel plate as panels to replace present sheathing of narrow wood. He also asks that the list of contamination commodities be expanded to include such things as carbon black, lamp black, bone meal, abrasive materials, dangerous chemicals (powdered), soda ash, sulphur, etc.

New Facilities

HEADING FOR PROMONTORY POINT (the dark strip of land in the middle distance) and Ogden (at the base of the distant mountains), an SP eastbound freight keeps to the main track at a mid-lake passing siding. The scene is typical of the remaining trestle structure of the 28-mile Lucin cutoff across Great Salt Lake, Utah, for which the railroad is now contemplating complete rock fill.

SP May Fill in Trestle Across Great Salt Lake

The Southern Pacific is "seriously considering" the task of filling in the remaining 12 miles of trestle on its Lucin cutoff across Great Salt Lake.

A company spokesman confirmed to *Railway Age* that the work is contemplated, and said an exploratory engineering study is presently under way.

Completed in 1904, the Lucin line cuts directly across the lake for 28 miles, touching land only briefly at Promontory point. All but the 12 miles of greatest depth have since been filled with rock. Such an undertaking presents a peculiar problem because of the extremely high salt content of the water (about 28%). The resulting high density tends almost to "float" rocks—especially under storm conditions—and makes stabilization of fill abnormally difficult.

Today there are some 38,000 piles still supporting this "sea-going railroad" over water of depths up to 40 ft. Despite the age of the structure, the piling is well preserved through the "pickling" action of the highly-salted water.

The cutoff replaced the original transcontinental SP line which avoided the lake entirely and wound through the Promontory hills to the north. A circuitous route requiring helper power and limited train lengths, this old main was the site of the famous "golden spike" ceremony marking completion of the first railroad across the continent. It was abandoned in recent years, although a monument now stands on the isolated spot where both coasts of the nation were first linked by rails.

Pictures of the cutoff, and a brief description of it, appeared in *Railway Age* December 14, 1953, page 120, in connection with its 50th "birthday."

Canada Increases Grade Crossing Funds

An amendment to the Railway Act increasing from $1,000,000 to $5,000,000 the annual contribution by the Canadian federal government for removing or protecting railway grade crossings has been passed by the Canadian Parliament. The measure also raised the federal share of crossing safety projects from a maximum of 40% to 60%. Railways and municipalities will continue to be "partners" in the stepped-up crossing separation-protection program.

Transport Minister George Marler, during debate on the bill, said much more care than is now exercised is needed on the part of car drivers. "We shall only solve the problem ultimately," he added, "when drivers generally have assumed greater care, and when, at the busiest crossings, we are able to construct grade separations instead of protective devices."

Canadian National.—Centralized traffic control over some 28 miles of track in the Ottawa area was placed in operation June 10. The system extends from Riverside to Hawthorne; from Hawthorne to South March with the exception of the new Walkley Roads yard area; and from Federal to Riverside. Installation was carried out by CNR personnel on behalf of the Federal District Commission, and is part of extensive railroad relocations being carried out by the commission for the Ottawa area under the national capital plan. Under the relocation plan, CNR yard operations will be transferred from crosstown tracks to new yards along Walkley road at the southern edge of Ottawa. Three passing tracks have been incorporated into the interlocking system to handle train meets. One, at Federal, has a capacity of 115 cars; the second, at Bell's Corners, of 108 cars capacity; and the third, at Ottawa Junction, of 55 cars.

Chicago, St. Paul, Minneapolis & Omaha.—Has ordered from the General Railway Signal Company equipment for installation of Syncrostep remote control at Hudson, Wis.

Erie.—A new Fisher body fabricating body to be built near Mansfield, Ohio, by General Motors Corporation will be served exclusively by the Erie for both inbound and outbound carload freight. The plant, involving 200 acres, is to be immediately adjacent to the road's main line. The Erie will build a siding and a new yard with a capacity of about 630 cars.

Galveston Wharves.—Bids are being received for a new, completely air-conditioned office building expected to cost about $200,000. It will be constructed of hollow tile, brick and steel and will contain approximately 14,000 sq ft of working space. Invitations for bids on steel bulkheading of Pier 40—including concrete aprons and repairs to the shedded pier—will be mailed out about July 1. It is anticipated that this work will cost about $600,000. Nearing completion are steel bulkheading of Pier 39 and the "T" head of Pier 39-40, concreting pier aprons, and repairs to shedded Pier 39, at a total cost of $1,260,000. Just completed is the dieselization of five locomotive cranes ($60,000) and installation of a self-trimming telescopic loading snout at sulphur plant Pier 14 ($24,000).

Maine Central.—Has ordered from the General Railway Signal Company equipment for installation of 22 miles of absolute-permissive block signaling between Tomah, Me., and Vanceboro.

New York City Transit Authority.—Has ordered from the General Railway Signal Company equipment for installation of NX relay interlockings at: (1) Ditmas Avenue, Brooklyn, to

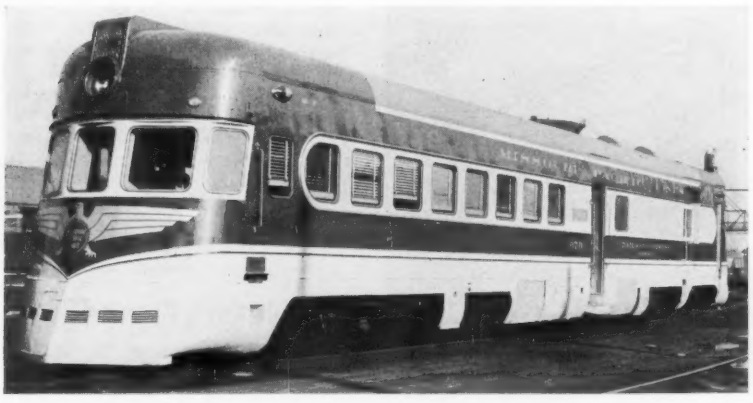
handle movements at a new connection with Church avenue, by Quikode remote control (2) Culver yard, Brooklyn, to direct movements in the yard and on the yard approaches; (3) the 60th Street Tunnel connection of the BMT division with the Queens Line of the Independent division; (4) Lefferts avenue on the Liberty avenue line, and between Aqueduct and North Channel bridge on the Rockaway line, both controlled by GRS Quikode from Liberty Avenue Junction. Auxiliary control machines at Howard Beach on the Rockaway line and at Lefferts avenue will be installed for optional local control of those two areas.

Ontario Northland.—Has ordered from the General Railway Signal Company equipment for installation of 25 miles of absolute-permissive block signaling between Temagami, Ont., and Bushnell.

Southern Pacific.—Diesel servicing facilities at West Oakland, Cal., will be gradually expanded to handle more than twice the number of units presently being serviced there. Plans call for a 215-ft pit with depressed floor and elevated platforms; remodeling of the building to permit easier access; installation of additional trackage, and installation of additional jacking pads at a total cost of about $75,000. At present, 42 passenger and 56 freight units are assigned here for servicing; by 1960 the company anticipates its diesel conversion program to reach a point where 148 additional units will work out of West Oakland.

Additional trackage is being planned on the San Pedro branch at Compton, where an 11,080-ft drill track, one 5,140-ft track and four additional tracks totaling 9,985 ft will be built to serve a newly planned industrial site at a total cost of $300,000. On this same branch, at South Gate, two sidings totaling 2,975 ft, and two crossovers, plus rearrangement of existing track, will cost about $48,000. Two short storage and makeup tracks will be built at Santa Ana at a cost of about $29,000. Interchange trackage with the subsidiary Northwestern Pacific at Schellville will be expanded by construction of 3,350 ft of track at a cost of $35,000. This project includes a 75-ft extension of an existing trestle.

Texas & Pacific.—Has ordered from the General Railway Signal Company equipment for installation of remote control at Preble and Iona, Tex., with a control machine at Weatherford, Tex.



COMPLETELY REPOWERED with two new Cummins 300-hp diesel engines and new Allison torque converter drives, this ACF-built rail car has been assigned to the Helena (Ark.)-McGehee run of the Missouri Pacific, replacing the "Delta Eagle." Air conditioned and seating 34, the car was built originally in 1942. Both trucks are powered—each by one engine-converter unit. The engines are a supercharged pancake type mounted under the car floor and coupled directly to converters. A mechanical linkage transmits power to the driving axle of each truck.

Rates & Fares

Canadian Bill Would Ease "Agreed Charges"

Legislation to facilitate the making of "agreed charges" by Canadian railways has been introduced in Parliament by Transport Minister George Marler. The measure largely implements recommendations of the Turgeon [Royal] Commission which made a special report on the subject earlier this year (*Railway Age*, March 7, page 5; April 11, page 8; April 18, page 70).

Principal features of the bill would:

(1) Authorize railways to put agreed charge contracts into effect on 20 days' notice, without the prior approval by the Board of Transport Commissioners which is now required;

(2) Permit steamship lines to become parties to such contracts on meeting certain conditions;

(3) Permit U.S. railroads operating in Canada to become parties to agreed charges initiated by Canadian railroads, but not to originate such charges; and

(4) Allow shippers considering their business adversely and directly affected by an agreed charge to appeal to the transport board. Shippers not directly affected, or shippers' associations, would have the right to apply to the transport minister for permission to appeal against an agreed charge after it had been in effect for three months.

NIT League Opposes War Claims Reopening

Challenging the "illusion that the voice of the Department of Justice is the voice of the government," the National Industrial Traffic League has filed a reply with the Interstate Commerce Commission opposing reopening of the war reparations cases.

The Justice Department, on May 26, asked such a reopening in a 267-page document in which it assailed the ICC's decision to dismiss each of the 17 separate complaints alleging overcharges by the railroads on government wartime shipments (*Railway Age*, June 6, page 9).

The NIT League reply took particular exception to the position of the Department of Justice that the league had "no justiciable interest" in the proceedings. The reply also assailed the government contention that the league's showing—and the showing of other intervenors—tended to be "inflammatory" or "self-serving."

The league's reply likewise took exception to the government complaint that the Section 22 rates under which much of the war material was shipped were excessive. The league stated "that the entire discussion of these matters in the petition for reconsideration is unsound and the commission's decision with respect thereto is in no respect erroneous." Calling for denial of the petition for reopening, the league declared that "this is really the consolidated attack of the Department of Justice, using the name of the United States, versus the railroads."

Railroads Reply in War Reparations Case

It took railroads just 35 pages to reply to the 267-page petition of the Department of Justice which asked the Interstate Commerce Commission to reopen the War Reparations cases.

The railroads described the Justice Department petition as "critically intolerant."

As reported in *Railway Age*, June 6, page 9, the Department of Justice asked the ICC to reopen its decision dismissing each of the government's 17 complaints alleging overcharges by railroads on government shipments during World War II. The 17 complaints were consolidated in one record and involved claims amounting to as much

as $3 billion, or as little as $475 million, according to varying estimates.

The railroads informed the commission that its report and order dismissing the cases fulfilled "the request of the Secretaries of War and of the Navy that the Attorney General secure an authoritative determination of the question of reasonableness." The railroad reply also called attention to reference in the Justice Department petition to the wartime Section 22 rates. These rates were set up, the roads declared, at the request of the government's officials and saved the government "over half a billion dollars."

UP Moves for Disposition Of Ogden Gateway Cases

The Union Pacific has filed a motion with the U.S. Supreme Court seeking disposition of the "Ogden Gateway" cases now on appeal before the court in such a way that the UP would not be required to enter in joint through routes with the Denver & Rio Grande Western. (*Railway Age*, June 13, page 14).

Specifically, the UP calls on the court to affirm a ruling of the federal district court at Omaha insofar as it "rejects and nullifies the (Interstate Commerce) commission's condemnation of Union Pacific routes as 'inadequate and less economical' than the Rio Grande route" as the basis for its order which required the U. P. to set up through routes with the Rio Grande.

Also, the UP motion requests reversal of the Omaha court's finding that the ICC order is valid "insofar as it requires through routes and joint rates on shipments of the specified articles stopped for in-transit privileges, such as processing, storage, milling and grazing cattle at points on the Rio Grande."

The UP maintained that the ICC misinterpreted the meaning of "public interest" in requiring the through routes and argued further that the Omaha court should have overruled the entire commission order. The UP stated that it provides in-transit privileges on its line and that the court eroneously concluded they did not exist.

The motion seeks Supreme Court disposition of the cases, which include an appeal by the D&RGW from the portions of the Omaha court ruling adverse to its interests, without receiving briefs or hearing oral argument.

Coal Group Wants to Quiz Faricy, Road Officials

The National Coal Association has asked the Interstate Commerce Commission for the opportunity to cross-examine the railroad officers who filed statements in support of the railroad petition to make the Ex Parte 175 rate increases permanent (*Railway Age*, June 20, page 9).

The coal group asked specifically to be allowed to cross-examine William T. Faricy, president, Association of American Railroads; J. M. Symes, president, Pennsylvania; J. A. Fisher, president, Reading; P. W. Johnston, president, Erie; J. P. Kiley, Milwaukee; and officers of the Baltimore & Ohio, the New York Central and the Nickel Plate.

Savings Seen in Half-Stage Icing

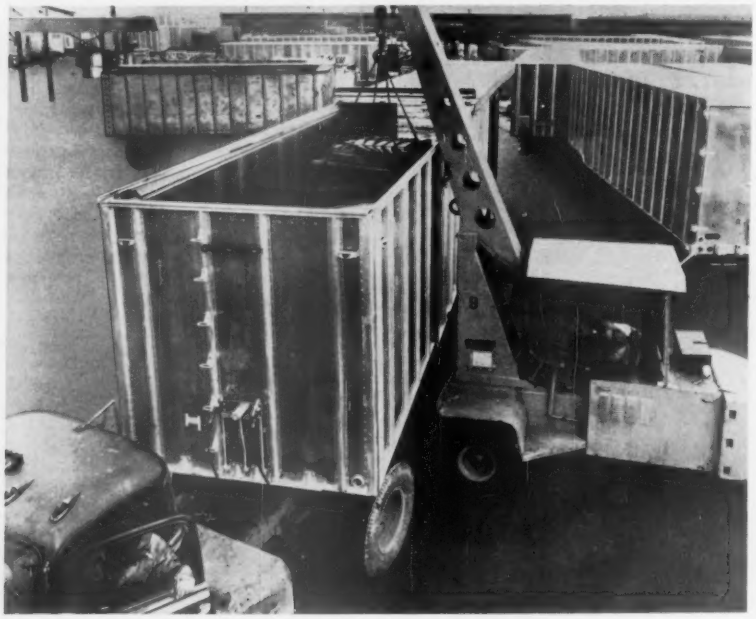
A recommendation for studies of the use of half-stage icing in transit refrigeration of meat products has resulted from a series of transportation tests made by the Department of Agriculture in 1951 and 1952.

The tests were conducted by the Transportation and Facilities branch of the department's Marketing Research division. They involved 20 carloads of meat and packinghouse products using four types of icing service: Water ice, water ice and salt, water ice plus salt and dry ice, and water ice plus salt in fan cars.

Among the findings was a statement that "the limited consumption of ice in a number of test cars that moved under full bunker ice during the late fall and winter months suggests that adequate temperatures might have been obtained by using half-stage icing, with consequent savings in refrigeration costs."

The report also recommended further study of the use of cars equipped with air-circulating fans, having noted that "during warm weather the lowest and most uniform temperatures were maintained in the car equippd with air-circulating fans," although ice consumption and cost of refrigeration proved greater in this car.

Another finding was that "when varying amounts of dry ice were used to supplement water ice and salt in non-fan cars, the results in these tests did not appear to warrant the additional cost of the dry ice."



PRIMARILY FOR OVERHEAD CRANE LOADING of steel products moving out of its headquarters city, Interstate Motor Lines of Salt Lake City has placed in service a closed aluminum-alloy trailer with removable roof. Developed and manufactured by the Strick Company, Philadelphia, the "two-way Strickroof" takes the place of conventional open-top trailers utilizing tarpaulin covers. The roof slides, or rolls, longitudinally; it is operated by a simple hand crank. It moves forward to expose two-thirds of the trailer length and backward to open up the remaining third.

Law & Regulation

ICC Budget Boosted

A $12,121,000 budget for the Interstate Commerce Commission for the 1955-56 fiscal year has been approved by President Eisenhower as part of a money bill for independent federal offices signed by him June 30. The budget is $451,000 more than 1954-1955 allotment of $11,670,000 and is $146,000 more than the $11,975,000 requested for the commission by the Bureau of the Budget. Included in the

1955-56 appropriation is a $125,000 allotment for carrying on the work of the now defunct Defense Transport Administration. This agency received a $170,000 share of the 1954-55 ICC budget although it was an independent agency until June 30, 1955.

"Third-Party-Notice" Issue Left Unsettled by Court

The United States Supreme Court has declined to pass upon the "third-party-notice" controversy at the National Railroad Adjustment Board.

It has reversed lower-court rulings which had enjoined the board from deciding a case in which the Order of Railroad Telegraphers claims a position held by a member of the Brotherhood of Railway Clerks. The position is on the Illinois Central, which went to court in an undertaking to require that the BRC and its members be given formal notice of the proceeding and thus made parties to the case (*Railway Age*, February 21, page 10).

While the BRC advised the road that it would prosecute a claim before NRAB if the decision in the ORT case were adverse to its member, it nevertheless filed in the court case a brief asserting that third parties were not entitled to notice.

The U.S. Supreme Court said the wording of the notice provision in the Railway Labor Act does not give a clear answer as to whether or not notice had to be given "beyond the parties to the submission." The case was No. 131, *Whitehouse v. Illinois Central*, and the opinion was by Justice Frankfurter. It noted that Justices Reed, Douglas and Minton dissented and that Justice Harlan did not participate.

Safety

Top Employee Safety Roads Named by National Council

Six Class I roads, group winners of the National Safety Council's annual Railroad Employees' National Safety Award, had a 1954 employee casualty rate "employees killed and injured per million man-hours" of 3.22, 53% less than the rate of 6.88 for all Class I roads.

The winners were:

Union Pacific (50 million or more man-hours group), with a total accident rate of 3.32 compared to 5.87 for all roads in this group;

Atlantic Coast Line (20-50 million man-hours group), with a rate of 3.02 compared to 6.55 for all roads in the group;

Duluth, Missabe & Iron Range (8-20 million man-hours group) with a rate of 1.93 compared to the group average of 8.03;

SHIPPING LUMBER ON BULKHEAD OPEN CARS, a continuing experiment of the Sterling Lumber & Supply Co., Chicago, has reached the point where plans are being made to create an industry-wide committee of the lumber industry to meet with the Association of American Railroads. Subject of the meeting would be standardization of methods and equipment for handling lumber and lumber-yard materials, with regard to needs of shippers and receivers. Benefits to railroads of such a lumber-shipping method are said to include reductions in car turn-around time and damage claims, development of more tonnage, and increased competitive ability.

Monon (3-8 million man-hours group), with a rate of 4.65 compared to the group average of 8.73;

Ann Arbor (1-3 million man-hours group) with a rate of 4.26 as compared to the group's 10.34; and

Texas Mexican (less than 1 million man-hours group) with a rate of 2.58 compared to the group's 10.23.

Winners among switching and terminal roads were:

Chicago River & Indiana (over 1.5 million man-hours group); and

River Terminal (Cleveland) (less than 1.5 million man-hours group).

The council also cited the Mexican operations of the Pullman Company as having the best record among divisions of its operations. In the company's shop units, the St. Louis shop was the winner.

"Railroad employees killed on duty by accidents totaled 228—as compared to 339 in 1953," said Ned H. Dearborn, president of the Safety Council. Terming this "the lowest toll in the history of modern railroading," he explained that "some of the improvement is due to declining railroad employment, but even so the death rate was the lowest on record."

Briefly . . .

. . . Canadian National research technicians claim discovery of a new and better way to preserve the flavor and freshness of fish. Freshly caught fish, prechilled to 29 deg, then placed in a container called "Canex," can be kept in the container for at least 100 hours without loss of juices or delicacy. With "Canex," fish may be shipped to Winnipeg from either Pacific or Atlantic seaboards.

Santa Fe, B&M Employees Honored for Rescues

A Boston & Maine fireman and an apprentice telegrapher for the Santa Fe will be awarded medals of honor at the Interstate Commerce Commission July 13. Each of the men rescued a small child from the path of a train at the risk of his life.

Hugh W. Cross, chairman of the ICC, will make the presentations in behalf of President Eisenhower. The men, Louis LaSalle of the B&M, and Glen E. Northcutt of the Santa Fe, are the 66th and 67th persons so honored since the medals were authorized by act of Congress in 1905.

The awards are based on these ICC accounts of the incidents: Mr. LaSalle, of Concord, N.H., grabbed 18-month-old Arthur Copp from the track in front of an eastbound freight at Rindge, N.H., February 10, 1955. Mr. LaSalle, fireman in the train, clambered to the front of the locomotive, jumped off and rolled with the boy to the side of the tracks as the engine passed by.

Mr. Northcutt, of Moore, Okla., was on the station platform at Moore October 7, 1954, when he saw a seven-year-old girl, Linda Sherwood, walking on a rail as a southbound freight approached at 50 mph. He jumped from the platform, picked up the girl and climbed back onto the platform just as the train went by.

A congratulatory letter from the

President will be presented to each winner at the ceremonies, first since May 1953.

Competitive Transport

Riss Defends Use of Lodge In Rebate Probe by ICC

Riss & Company, Kansas City truck firm, has asked the Interstate Commerce Commission to drop its investigation of alleged rebates to Riss' shippers through entertainment at a Canadian lodge.

The trucker, answering charges reported in *Railway Age*, October 18, 1954, page 10, said the commission has no authority to conduct an investigation of such matters because they involve "criminal provisions" of the Interstate Commerce Act.

The ICC, in announcing the inquiry, questioned whether use of the lodge to entertain shippers amounted to rebates and concessions. Riss' reply to the commission held that "a carrier's activities which do not ultimately reduce costs of transportation services to the shipper cannot constitute" such rebates.

"Surely," the reply continued, "the bottle of liquor a shipper's employee receives from a motor carrier at Christmas does not benefit the shipper itself; nor does the consumption of beverages or other entertainment received by a shipper's employee from a rail carrier at the unveiling of a new locomotive or piggyback car. No more does the shipper benefit from the sunburn received or the fish caught and eaten by his employee who is the beneficiary of the sort of entertainment under investigation here."

Riss & Co. is involved in a $90 million suit against the railroads, and a $100 million counter-suit filed by the roads; and is under fire in Ohio and before the ICC over alleged violations of Ohio traffic laws.

People in the News

Former DTA Deputy Chief Named to Advisory Post

Homer C. King, former deputy administrator of the Defense Transport Administration, has been retained as a consultant to the transport mobilization staff of the Interstate Commerce Commission.

Mr. King retired June 30 with the termination of DTA. He had been in government service 35 years, having joined the ICC in 1922 as a locomotive inspector. He had been a fireman with the Santa Fe. Mr. King was transferred to the Bureau of Service in 1931 and was named director of that bureau in 1942.

He served with the Office of Defense Transportation from 1944 until it went out of existence in 1949, then returned to the directorship of the ICC Bureau of Service until 1950 when DTA was established.

Senate Unit Approves Hall For ICC Position by 3-1

The long-delayed Congressional approval of John A. Hall as director of locomotive inspection, Interstate Commerce Commission, has moved a step closer to realization, but not without complications.

The Transportation Subcommittee of the Senate Interstate and Foreign Commerce Committee voted its approval of his nomination, 3-1, but the dissenting vote was cast by the subcommittee chairman, George A. Smathers, Democrat of Florida. Another member, Price Daniel, Democrat of Texas, did not vote.

Mr. Hall was nominated to the post last September by President Eisenhower who earlier had submitted, but later withdrew, the name of Charles H. Grossman for the job (*Railway Age*, October 4, 1954, page 13). A Commerce Committee spokesman said action by the full committee may be taken very soon, possibly July 13.

Voting in favor of Mr. Hall's appointment were Senators William A. Purtell, Republican of Connecticut, Andrew F. Schoeppel, Republican of Kansas, and Strom Thurmond, Democrat of South Carolina.

Mr. Hall, former special assistant to the grand chief engineer, Brotherhood of Locomotive Engineers, has been filling the ICC directorship since last October 5 on an interim appointment.

Deale Succeeds Jackson As ICC Dockets Chief

Harry R. Deale has succeeded Luther B. Jackson as chief of the Section of Dockets, Interstate Commerce Commission. Mr. Jackson, a government employe 43 years, retired June 30. Mr. Deale has been assistant chief since 1952.

Schutrumpf Leaves ICC Bureau of Finance Post

William J. Schutrumpf, chief of the Section of Convenience and Necessity, Bureau of Finance, Interstate Commerce Commission, has retired after 46 years in government service. An aide to retired ICC Commissioner Charles D. Mahaffie when Mr. Mahaffie was solicitor for the Interior Department from 1917 to 1922, Mr. Schutrumpf has been with the ICC since 1922. He was made an associate examiner in 1926, and examiner in 1936 and chief of the Section of Convenience and Safety in 1946.

(More News on page 54)

IN TWO WEEKS OF "SCHOOL" these Canadian National and Canadian Pacific locomotive maintenance officers learned to teach operation and maintenance of Vapor-Clarkson steam generators. They will now set up on-the-property training programs on passenger train heating equipment. The "school" was conducted at the Chicago plant of Vapor Heating Corporation, under direction of G. C. Scott, Sr. A new instruction manual on steam generators was developed as a result of the training program.

Roundness of EQS wheel is practically perfect—as-cast. No machining necessary . . . the toughest and longest-wearing metal is *on the tread, NOT in the scrap bin.*

Pressure pouring in graphite molds results in superior flange and tread wear. Note the directional solidification in flange and tread, shown before heat treatment: *the grain of the metal in EQS wheels is at right angles to the point of wear.*

Long sweeping fillets under flange and rim of EQS wheels insure greatest possible strength.

The Griffin EQS plate is of *uniform thickness,* dimensionally accurate in any section.

Now made of .75 carbon steel. Exclusive casting process used in producing EQS wheels permits use of recognized steel analysis that will best meet your requirements.

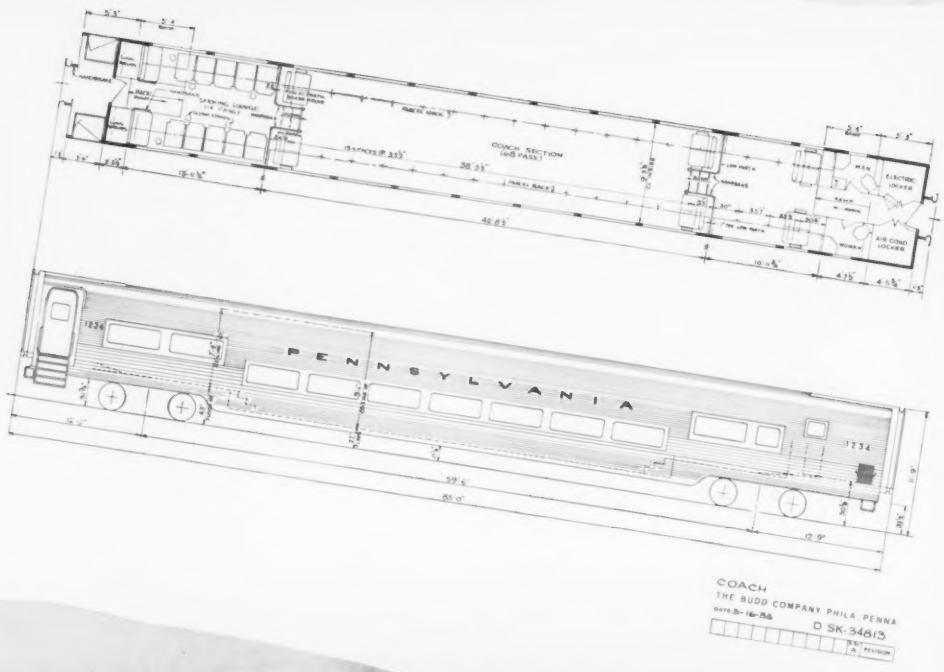
Only one wheel can pass this test with a score of 100

Location of hub and plate is identical in all EQS wheels; dissipation of heat is even, without developing internal stress.

GRIFFIN EQS ELECTRIC QUALITY STEEL

GRIFFIN WHEEL COMPANY
445 N. Sacramento Blvd., Chicago 12
GRIFFIN STEEL FOUNDRIES LTD.
St. Hyacinthe, Quebec, Canada

Give the "green" to GRIFFIN... and watch your costs go down!



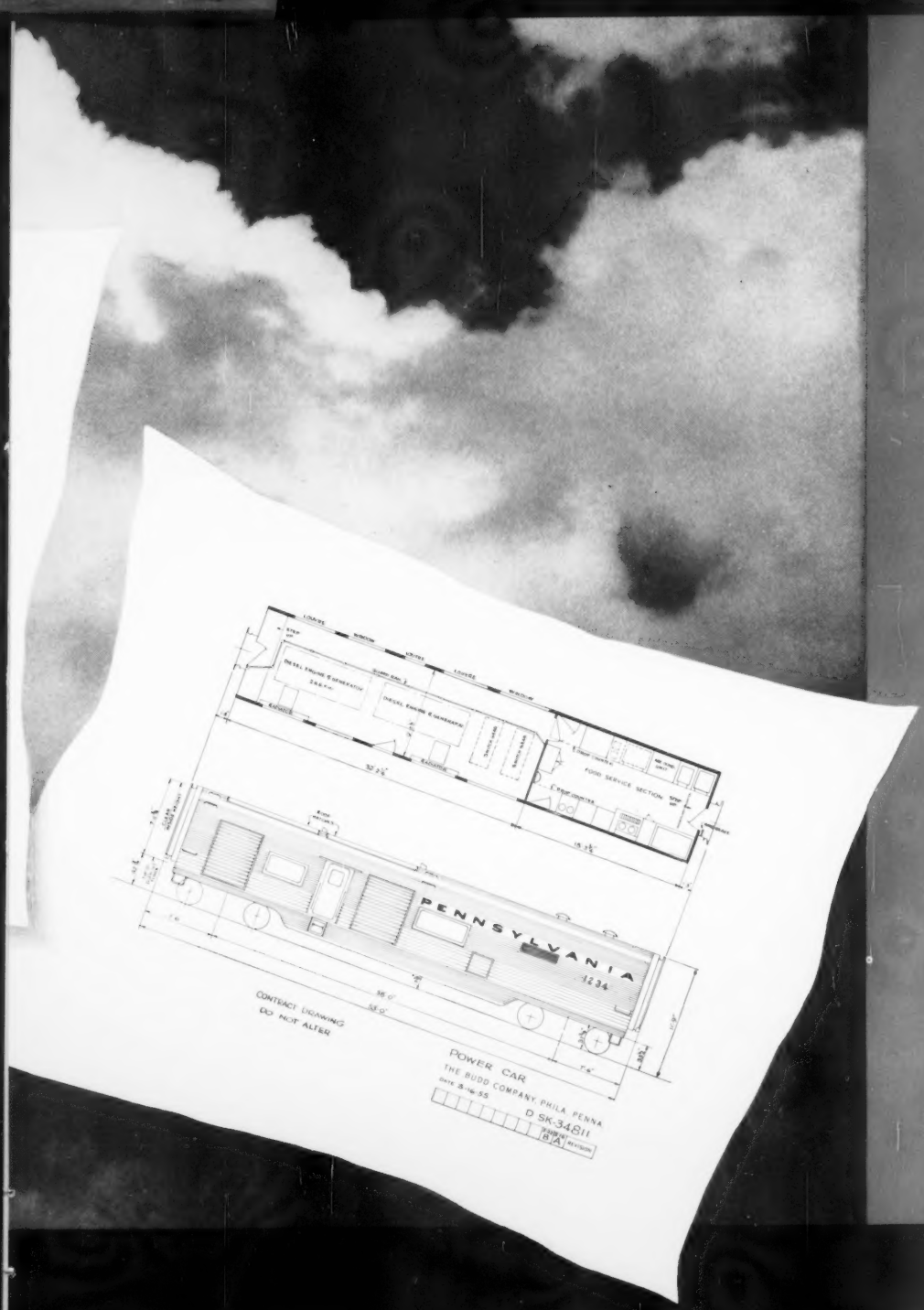
BUILDING THE PENNSYLVANIA'S NEW STAINLESS STEEL TUBULAR TRAIN

The comprehensive book, "Transportation in America", sponsored by the Association of American Railroads, includes this statement: "The modern era of passenger equipment began with the inauguration of the Burlington's first Zephyr in November, 1934."

We built it of stainless steel to a new, lightweight design. The voice advocating lightweight construction was then a lonely one.

For more than twenty years we have believed in and employed the principle of lightweight construction, and the unmatched experience this has provided will be applied to the Pennsylvania's new lightweight train.

The Budd Company, Philadelphia 15



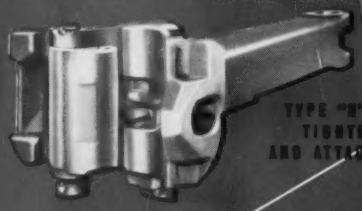
The Pennsylvania's new lightweight stainless steel train will have a consist of eight cars, and will be hauled by an existing electric or Diesel locomotive. Seven have a capacity of 82 passengers each. They will weigh 81,300 pounds, be a standard 85 feet long, 11 feet 9 inches high, with a center of gravity only 43 inches above the rail. The eighth car, 53 feet long, will contain the generators to provide electricity for light, air-conditioning and heat. It will also contain a compartment for the preparation of food to be served at chair side. This car weighs 95,600 pounds. Delivery is scheduled for the spring of 1956.

Budd

Since 1902..

'DEPENDABILITY IN SERVICE'

TYPE "E" RIGID SHANK COUPLER & YOKE

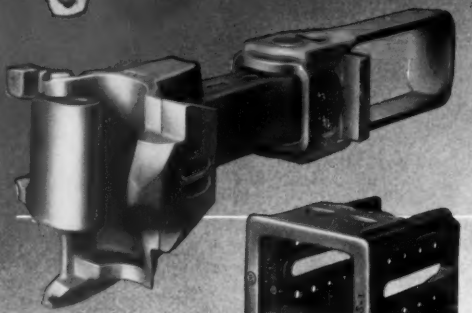


TYPE "H" TIGHTLOCK COUPLER AND ATTACHMENTS

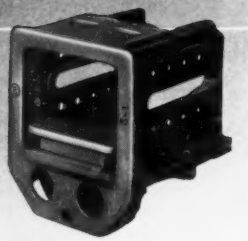
TYPE "E" SWIVEL SHANK COUPLER & YOKE

. . a time-proven feature of all

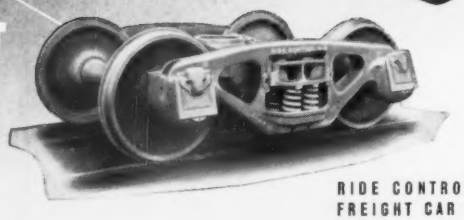
Buckeye



TYPE "F" INTERLOCK COUPLER AND ATTACHMENTS

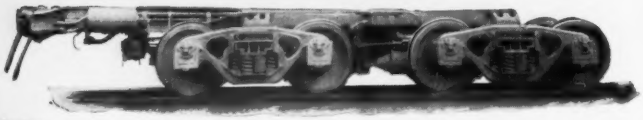


STEEL CASTINGS for RAILWAY EQUIPMENT



RIDE CONTROL (A-3) FREIGHT CAR TRUCK

BUCKEYE C-R (CUSHION-RIDE) FREIGHT CAR TRUCK



BUCKEYE EIGHT-WHEEL TRUCK

BUCKEYE SIX-WHEEL TRUCK

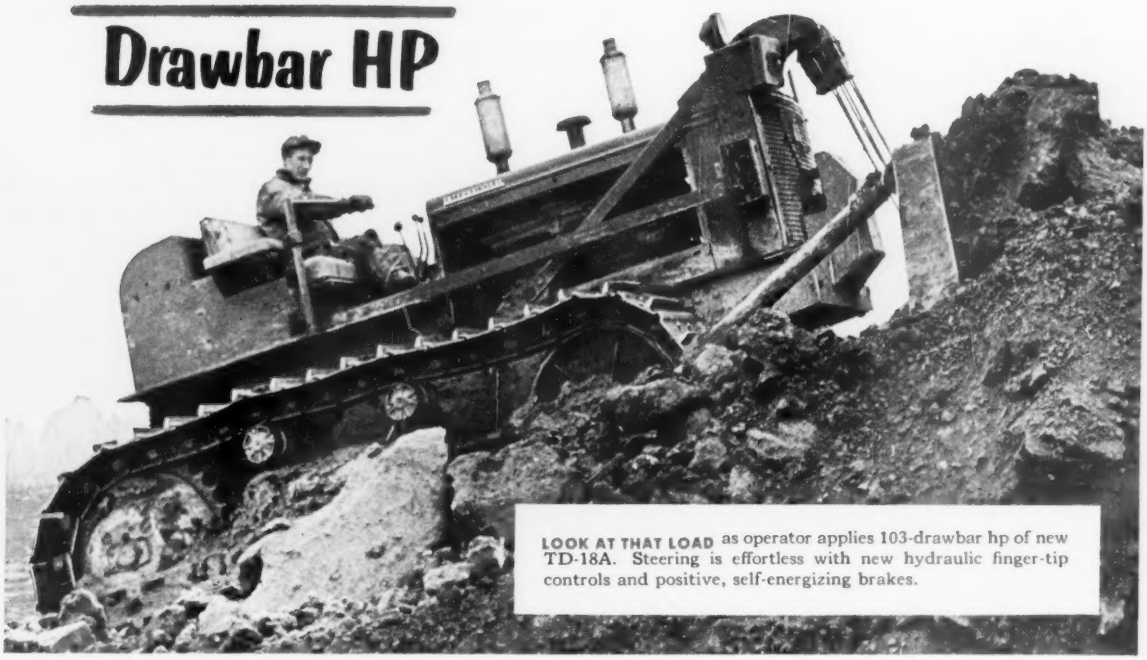
FOR COMPLETE INFORMATION . . . CALL or WRITE

Refer Adv. No. 11876

The Buckeye Steel Castings Co.

COLUMBUS, O.
NEW YORK, N.Y.
CHICAGO, ILL.
ST. PAUL, MINN.

New Increased Power
INTERNATIONAL TD-18A
Now with 103 Drawbar HP



LOOK AT THAT LOAD as operator applies 103-drawbar hp of new TD-18A. Steering is effortless with new hydraulic finger-tip controls and positive, self-energizing brakes.

NEW Power . . . New gearing . . . New ruggedness —for greater production

NEW Track Frames . . . 300 per cent stronger

NEW Finger-Tip Power Steering . . . advanced hydraulic design

NEW Operator Compartment . . . comfortable driver's seat —easy-to-reach controls

NEW Track Roller Oil Seals . . . 500-hour period between lubrications

NEW Positive Self-Energizing Brakes, 13% more effective brake area

NEW Appearance . . . sleek grille, heavy fenders, 75-gallon fuel tank. Better visibility . . . control-tower view front and rear

Here's the crawler tractor with everything contractors need to meet increased competition—increased workpower, increased ease of operation, increased durability:

The improved INTERNATIONAL TD-18A, now with 103-drawbar horsepower at 24,300 lbs. maximum drawbar pull in first gear at rated rpm.

Double check all these great new TD-18A features—right here on this page—on your job where you can take over the controls and appraise their value in extra work done for lower cost. Your INTERNATIONAL Industrial Power Distributor will arrange your own personal shake-down test of the TD-18A any time you say.

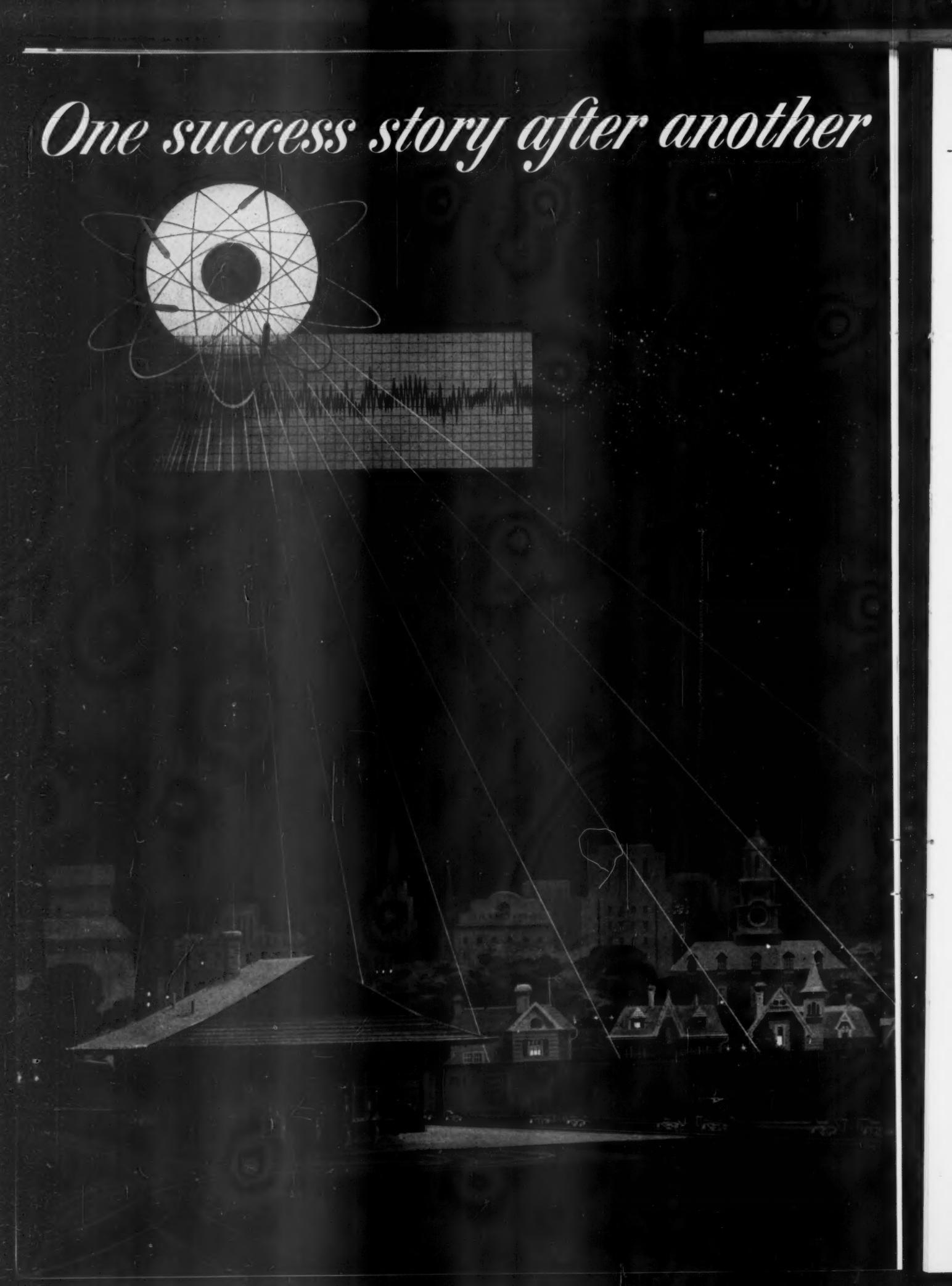
INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILLINOIS

INTERNATIONAL HARVESTER

INTERNATIONAL INDUSTRIAL POWER

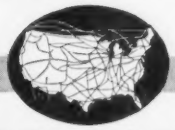
MAKES EVERY LOAD A PAYLOAD

One success story after another



passed by last night

on the



GREAT AMERICAN RAILWAY *System*

In Montreal and Mexico City, in Tacoma and Tampa you could have seen PS-1 Box Cars on the move last night.

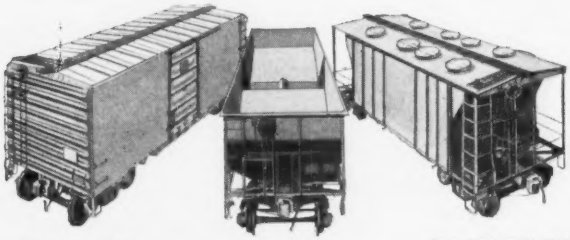
They are the result of research and design which anticipates the wide range of conditions on the Great American Railway System*. And, because they are built to "take it" anywhere, on this system of 402,603 miles of track, they can be counted on to perform at the lowest cost per ton mile, per year of service.

Pullman-Standard sales and service engineers *know* that the 58,000 PS-1 Box Cars, owned by 60 railroads, are establishing outstandingly successful service records. These engineers, traveling over 100,000 miles north, south, east and west every year, study cars of all makes. They search for the origin of parts failures, then follow-up to find out whether the cures are effective. They know the cause and effect of the toughest operating conditions everywhere.

The findings have influenced the construction of the PS-2 Covered Hopper Car and the PS-3 Hopper Car as well as the PS-1 Box Car. And their reports have helped many railroad mechanical men compare car construction values. Thus engineering that starts in the field, contributes to the successful operation of the cars that are designed and built to serve best on the Great American Railway System.

*A typical box car moves, in one year, on 39 different roads, including two or more trips on 24 roads. (A.A.R. data)

Built to serve best on the
GREAT AMERICAN RAILWAY SYSTEM



PS-1 BOX CAR

PS-3 HOPPER CAR

PS-2 COVERED HOPPER

YOUR NEEDS CREATE THE PULLMAN "STANDARD"

PULLMAN-STANDARD

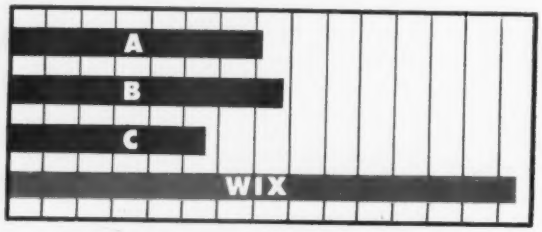
CAR MANUFACTURING COMPANY
SUBSIDIARY OF PULLMAN INCORPORATED
79 EAST ADAMS STREET, CHICAGO 3, ILLINOIS
BIRMINGHAM, PITTSBURGH, NEW YORK, SAN FRANCISCO, WASHINGTON

TICKETS and OIL FILTER CARTRIDGES

It Takes More Than a Quick Look to Tell How Far They'll Go!

A quick look at a railroad ticket may represent the difference between Portland, Ore., and Portland, Me. Judging Oil Filter Cartridges by appearances can be equally misleading—but here it's dollars instead of miles.

The value of an Oil Filter Cartridge lies hidden in such things as engineering, design, formula, craftsmanship and "know-how". WIX Engineered Filtration with electronic control of density and technical supervision of every step in construction pays off in PERFORMANCE.



A recent laboratory test of a WIX lube oil cartridge versus 3 other makes exposed this dramatic difference in performance.

Whether your problem is for fuel or lubricating oil filtration on yard, freight, passenger engines or maintenance-of-way equipment, you'll find the sound, economical, trouble-free answer in WIX Engineered Filtration.

Get the facts—write for catalog and full information today.

wix TRADEMARK REG.

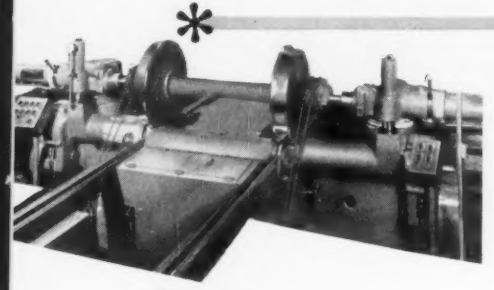
OIL FILTERS / CARTRIDGES

WIX CORPORATION · GASTONIA · N·C·

WAREHOUSES

DES MOINES • GASTONIA • ST. LOUIS • NEW YORK • SACRAMENTO

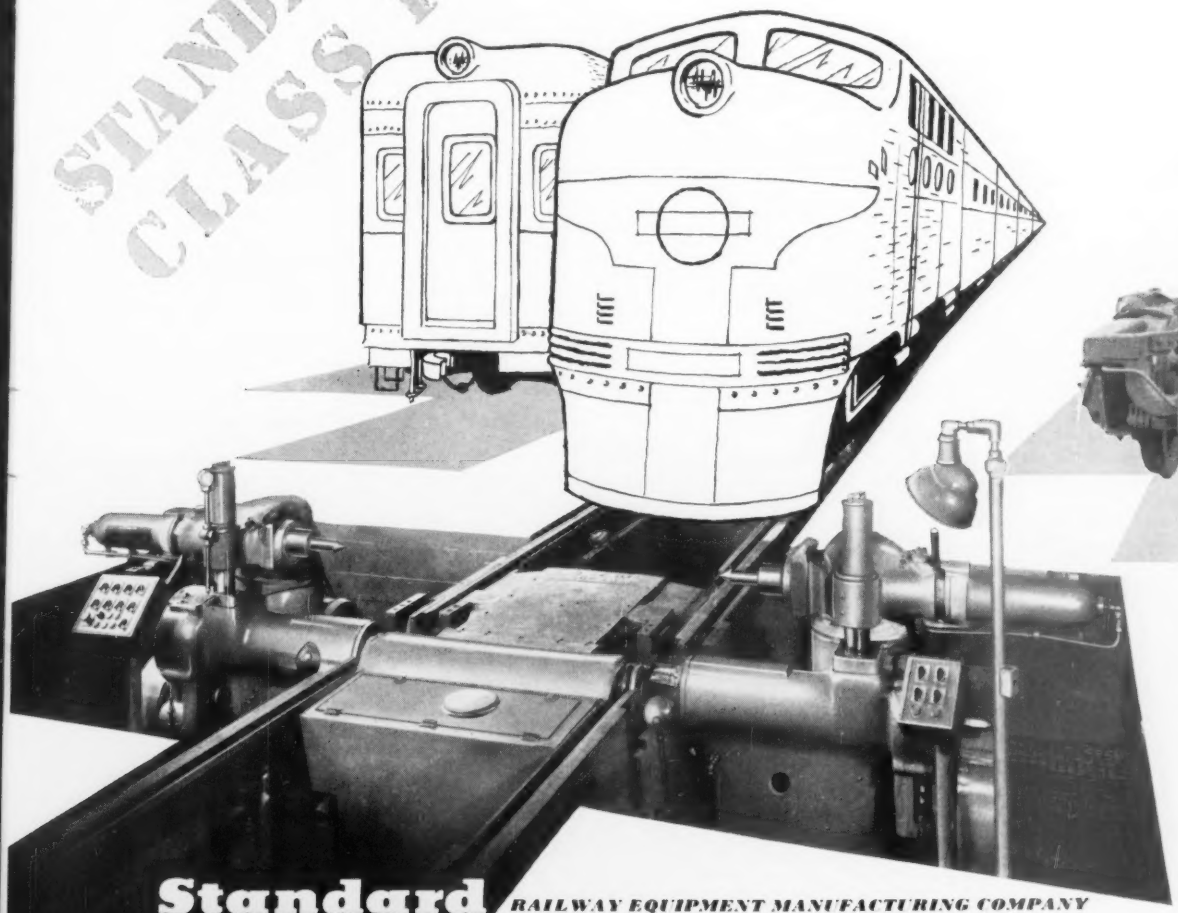
the **Standard** WHEEL TRUING MACHINE for ALL WHEEL WORK

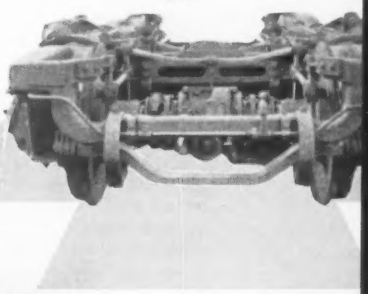


From a locomotive to a pair of mounted wheels, the **Standard** Wheel Truing Machine is equipped to handle *all* truing jobs.

One man operation by push button controls. The **Standard** Wheel Truing Machine eliminates the costly delay of dropping trucks and removing wheel and axle assemblies for turning of wheels. The **Standard** Wheel Truing Machine is the most efficient method for restoring wheels to contour for cars or locomotives, whether on *or off* the equipment.

STANDARD ON LEADING CLASS I RAILROADS





Standard *RAILWAY EQUIPMENT MANUFACTURING COMPANY*

GENERAL OFFICE: 4527 Columbia Avenue, Hammond, Indiana

New York • Chicago • St. Paul • San Francisco

Standard *Railway Equipment Manufacturing Co., (Canada) Ltd.*

Sun Life Building, Montreal

23 Flying Red Horse product blending plants across the U. S. can save you time, trouble and money!

Each of the Flying Red Horses on the map above represents a complete Blending Plant—a dependable source of supply for your petroleum needs.

At any of these 23 plants—far more than any other oil company maintains—you can get correct products for your particular operations. Even if you require some specialized product—a product that must be tailor-made to your specifications—these plants can supply it with minimum delay.

This exclusive "round-the-corner" service can benefit you in many ways . . .

1. *Reduced inventory* — you need not stock up excessively since our plants are within easy access. This simplifies inventory management.

2. *Lower transportation costs* — because we have 23 plants, all strategically located, only a *short* haul is necessary to bring our products where they're wanted.

3. *Faster delivery* — there's a plant close enough to you to assure prompt delivery always.

4. *Special requirements* — emergency delivery or special formulation — your request is always handled promptly and efficiently.

5. *Save money on empty containers* — fewer containers to handle and less of a haul to return them saves you time, trouble and money.

Take advantage of this nation-wide network of railroad "service stations" to improve your operations — cut your costs. Get all the facts by writing to one of the addresses below.

SOCONY MOBIL OIL CO., INC., and Affiliates:
MAGNOLIA PETROLEUM CO., GENERAL PETROLEUM CORP.

RAILROAD DIVISION

26 Broadway, New York 4, N. Y. • 59 East Van Buren Street, Chicago 5, Ill.

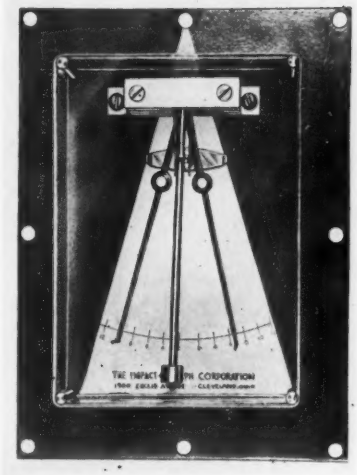
Railroad Lubricants

What's New in Products

Impact Recorder

Attached to the side of a freight car during yard operations, this recorder is designed to show the speed of impact and the direction from which the car was struck. Developed as an educational tool at the suggestion of J. P. Newell of the Pennsylvania, the Yard-Recorder can be inspected after switching and the effects of the method used in handling the car can be read by anyone interested.

The Yard-Recorder indicates the speed of the car with a pendulum device which moves the indicating hands. These hands are moved over a scale calibrated in miles per hour and marked with fluorescent paint so that it can be read at night. Locked to prevent tampering, the recorder requires a special wrench to change the indications. *Impact-O-Graph Corporation, 1900 Euclid ave., Cleveland 15* •



Midget Marker Light

This marker light was designed for general rear-of-train and locomotive use and particularly for cabooses with low-voltage electric systems. Only one-third normal size and light in weight, it is said to have greater beam intensity and better visibility than standard markers. A rubber bushing cord grip is furnished at the bottom for the entry of the cord. *Pyle-National Company, 1334 N. Kostner ave., Chicago 51* •

Car Weighing Device

An automatic car weighing device has been developed for use in automatic controls for master and intermediate retarders in classification yards.

Located in the approach to the master retarder, the weighing device is placed in a slot of a 7-ft section of special rail. This rail is of a special section to reduce stress, and is made from special steel, heat treated, to insure long service. The device itself consists of three sets of contact fingers, which have adjustable openings set in accordance with the car weights to be registered. The movable portion of each set is mounted on a common bracket.

Each car wheel will cause the rail head to deflect as it passes over the slot. This movement is transmitted to the movable contact support to close one or more contacts, depending upon the weight of the car. Usual settings register a car of less than 35 tons as light, 35 to 55 tons as medium, and above 55 tons as heavy. This weight information is fed into the automatic speed control circuits of the retarders.

Obviously this device weighs each axle of a cut. As registered, the weight results in energization of corresponding relays in a coordinating unit. This unit is arranged to average the weight of a cut so that retarder operation is governed by average cut weight rather than individual axle weight.

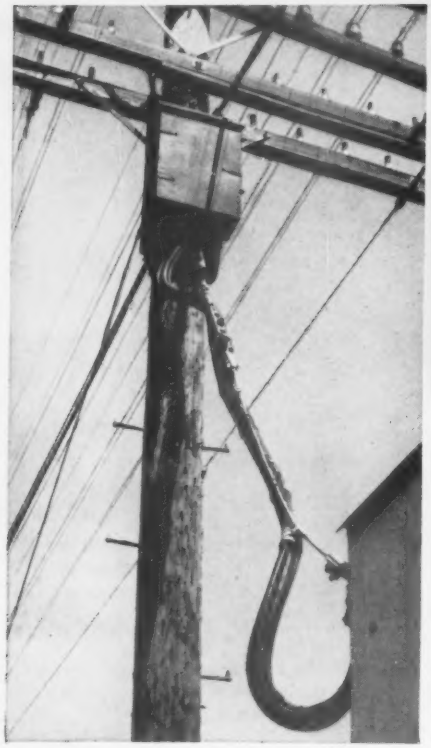
Modification of weight information in the various sections of the master retarder, and the consequent modification of the controls obtained, goes on until an end-of-cut indication is received. From this point on, the occupied portion of the retarder will be controlled in accordance with the final information existing at the time. In the case of long retarders, it is possible to have the speed of the first cut controlled by its weight independently of the control of a second cut by another section of the same retarder.

"Weight control" can be applied to master and intermediate retarders successfully because rolling resistance generally varies roughly as the weight of cars. Final adjustments in speed can be made in the group retarders where the actual rolling characteristics and the distance to be traveled by a particular cut are taken into consideration. The weight information can be transferred to group retarders to be used in conjunction with the other factors to help select pressures and speeds.

Speed selecting levers for master and intermediate retarders are eliminated from the control machine in this system. An auxiliary three-position lever is provided for each of these retarders, however, to make minor corrections for differences in track running qualities—should these be necessary. Usually, this lever is left in the "normal" position, but for wet track or very cold weather, for example, the lever can be moved to the "slow" or "fast" positions to compensate for these conditions.—*Union Switch & Signal Division, Westinghouse Air Brake Company, Swissvale, Pa.* •

On the Feather River Route of the Western Pacific.

These Okonite-Okoprene Signal Cables installed on Western Pacific right-of-way are continuously exposed to weather extremes.



WESTERN PACIFIC selects OKONITE SIGNAL CABLES for all-weather dependability

The Western Pacific Railroad, in company with over 100 Class I railroads, relies on Okonite-Okoprene cables for dependable, all-weather service on their signal systems. On the San Francisco-Stockton Division, Western Pacific uses Okonite-Okoprene multiple conductor signal cables as laterals from track to signals. This is another example of the vital jobs capably handled by Okonite cables in railroad service.

Okonite insulation, made of natural Up-River Fine Para Rubber, has proved itself in service for over 75 years. It is always vulcanized in a continuous metal mold to assure a uniform cure. Perfect centering of the conductor is assured by the strip-insulating process. Okoprene, an exclusive Okonite neoprene formulation, protects the cable against weather extremes, alkalies, moisture and acids, as well as mechanical damage and most oils.

Okonite cables have proved themselves in service under the most difficult operating conditions for every important railroad use. Write for Bulletin RA-1078 for information on Okonite cables for railroad use to The Okonite Company, Passaic, N. J.

OKONITE insulated cables

SINCE 1878

2628

Is Judge Mitchell Right About Passenger Subsidy?

Anybody who promotes public discussion of transportation problems by getting them on the front page of the metropolitan newpapers performs a valuable public service—and does a favor to the transportation industry, even to those in the industry who may not agree with what the speaker says. That is the service Commissioner Richard F. Mitchell performed in his June 28 speech to the railway accounting officers at their Atlantic City meeting.

He advocated—or, at least, suggested—that the taxpayers subsidize railroad passenger service to the extent of some $400 million. This figure, he estimates, represents the actual loss the railroads suffer from their passenger service; and he believes the general public who derive the benefit from this service should meet the cost, instead of shouldering it off on to patrons of railroad freight service.

"Subsidy" is a fighting word among railroad men. Most of them want none of it. Alone, of all American business, railroad people have condemned subsidies—and have really meant what they said. Nevertheless, subsidies continue to be a pervasive reality in transportation. To be eliminated or controlled, they have to be understood; and to be understood, they have to be discussed. In this paper's opinion, Commissioner Mitchell has done the railroads a favor by bringing this subject out into the open.

The only genuine solution to the subsidy problem is to cut the subsidies out. As long as any subsidies exist, there will be constant pressure to extend them. If wheat farmers are subsidized, then why not milk and corn and cotton? If agriculture, or any part of it, is subsidized—then why not mining and manufacturing? It isn't merely a question of injustice to the unsubsidized—but the difficulty the unsubsidized have of staying in business, alongside heavily subsidized competitors.

This situation is nowhere more acute than in transportation. Inland waterway transportation, of course, is the most flagrant example. Users of the waterways (mostly big business) do not pay a cent toward the cost of the facilities provided for them, and these facilities are completely untaxed. The *percentage* of subsidy in highway transportation is less than in the case of the waterways, but the *absolute amount* of the subsidies is far greater.

If highway property in the United States were to be user-financed and tax-paying in exactly the same way that railway property is, then state and local governments and the public schools would be rolling in wealth. The states could abolish their sales taxes and income taxes, and still be rich. If waterways and airports, also, were to appear on the tax rolls— yielding revenues, instead of consuming them—then government's income would rise still further, and exactions on present taxpayers could be still further reduced.

Furthermore, if all transportation were to be placed on a self-sustaining, tax-paying basis—exactly as the railroads are—then there would be no "railroad problem," There wouldn't be any "passenger deficit" either—because highway and airway transportation would cost a lot more than it does now, and the railroads' passenger service would be relatively far more attractive to customers. Even the urban transit lines would go "into the black"—if their highway competition were compelled to pay its own way, and if highway property were taxed.

The cure, then, is easy to prescribe—but getting the patient to take the cure is another problem. There is no evidence whatever that the American people object to the subsidies enjoyed by highway, waterway and air transportation—or that they are disposed to discontinue these subsidies in order to do themselves (as taxpayers) a favor, or in order to help the railroads survive as free enterprise. The railroads, in short, have got to learn to live and to prosper despite their handicap as the only form of transportation not on the public payroll. The role the railroads have to play is a noble one, but it is not easy, and it may become impossible.

Anything that can be done to dramatize this subsidy situation, even to the extent of suggesting similar subsides for the railroads, constitutes an educational public service. If the railroads wind up by being actually subsidized, that catastrophe is hardly likely to come about as the result of such speeches as Commissioner Mitchell's.

In North America no transportation enterprise has ever become either semi-socialized or wholly socialized from deliberate policy arrived at by serious public discussion. Socialism comes in North America, when it does, only from aimless drifting, and from a lazy or emotional unwillingness to face and discuss unpleasant facts. Nothing could so effectively promote the public acceptance of the freedom from regulatory restraints the railroads need—as greater public realization of the handicaps the railroads suffer, not only from over-regulation, but from subsidized competition.

ONE TRACK, WITH MODERN SIGNALING, now serves where two were formerly required.

MORE EFFICIENT RAILROADING . . .

Modern Signaling = Fewer Tracks

For each track mile removed, railroads can avoid expenditure of $30,000 to lay new rail; get $4,500 to $10,000 salvage value and save about $3,000 annually on maintenance

By JOHN H. DUNN
Associate Editor

Recently, the railroad industry received the impressive news that the New York Central will remove, within the next 16 months, two of the four main tracks on nearly all of the 185 miles between Buffalo and Cleveland, and that it is investigating the possibility of removal of one of the two main tracks on 200 miles between Boston and Albany.

Are these projects of a nature peculiar to the New York Central? If not, what are the factors to be considered as applying on sections of other railroads? Perhaps an answer may be found in an analysis of changing circumstances, and a study of similar projects now under way or recently completed on other roads.

Modern motive power, changing conditions in train operations, and new developments in signaling systems are enabling railroads to (1) move more trains over single-track lines; (2) remove one or more main tracks where two or more are now in service; or (3) get more trains over existing double track, thus avoiding construction of a third track. The objective is to avoid the costs involved in renewal of rail, fastenings and ballast where tracks can be removed, and also to reduce current expenses for track maintenance and taxes. In addition, on many of these installations, on-time train performance has been improved, and better service to the public has resulted.

Trains are now fewer and faster, compared with 25 to 40 years ago, when much of the multiple trackage now being studied was built. Passenger train speeds have been increased from roughly 55 or 60 mph to 79 mph, or more. Freight speeds have increased from about 35 mph to 60 mph. Diesel locomotives take on fuel only at terminals and save the time previously lost in stops for fuel and water for steam locomotives. Modern passenger and freight cars are designed for higher speeds. Better rail, ties and ballast, with improved maintenance practices, make track suitable for high train speeds. There has been a great reduction in time lost on sidings for meets under the antiquated system of authorizing train movements by timetable and train orders.

Considering these and other factors, the track-occupancy time of main tracks per train mile, is much less now than in years gone by. This leads to these questions, as applying to a given territory: (1) What can railroads do to handle the present traffic with fewer delays, without adding another main track; and (2) in multiple-track territory, can one main track be removed, with adequate track capacity being provided by power switches and signals in a CTC system to authorize train movements by signal indications?

Time to Act

A logical time to remove one of two main tracks is when the rail in one or both tracks is due for replacement. The material and labor cost of laying new rail may be $30,000 or more per mile of track, depending on weight of rail and other local circumstances. By maintaining one main track, instead of two, the annual track maintenance cost may be reduced $2,000 to $3,000 per mile of main track eliminated. In some states, the annual taxes per mile of main track may range up to $500.

In 1950 the Milwaukee was faced with the renewal of rail on both main tracks on 62 miles. By removing one track, renewing rail on the remaining track, and equipping it with centralized traffic control the road saved $1,500,000. In 1951 the Erie changed from double to single main track on 56.7 miles. For the project as a whole, the retirements included 47.5 miles of second main, 2.7 miles of sidings and 17 turnouts. The rail removed included 21.3 miles of 110-lb rail laid in 1926-28; 24.4 miles of 112-lb laid in 1941-48; 1.1 miles of 115-lb laid in 1948; and 0.85 miles of 132-lb laid in 1949.

Roughly, 110,000 ties, in condition for reuse in main track, were salvaged. Total salvage value was approximately $575,000, and the expense involved in this operation was about $136,200, leaving a net salvage of $439,100. The estimated cost of changing the turnouts and other track changes was $37,570, and the signal changes and additions were $463,347, totaling $500,920. Thus, the salvage of rail and ties paid all but about $62,000 of the cost of the entire project. The estimated reduction in track maintenance is $92,000 annually.

If the rail in track sections removed is good for further service, its salvage value is much more than the scrap price. When the Southern removed second track on 42 miles in Alabama, the rail was used on other divisions to release relay rail, which in turn was used in the construction of a new yard at Birmingham. About 80 per cent of the ties and much of the slag ballast were also used in the construction of this yard. Special machines for taking up rail and ties were developed on this project.

Non-Stop Meets

As compared with single track, the big advantage of double track is when trains of opposing directions meet. When changing from double to single track, several roads have made provisions for trains of opposing directions to meet with very little, if any, loss of time. Long sidings is one answer. In 1951 the Boston & Maine removed second track on about 22 miles out of 34 between Nashua, N. H., and Concord; sections of second main about two miles long were left in place as sidings. These long sidings increase the opportunities for trains to make running meets, in which neither train stops. In a recorded instance, a southbound train went through a siding at an average of 30 mph without a stop, while the northbound train went by on the main track at normal speed of 60 mph, without a stop. At that time this territority was handling 26 to 30 trains daily.

On 107 miles of single-track on the Santa Fe between Bakersfield, Cal., and Fresno, there are twelve 2-mile sidings, two 2.5-mile sidings with center crossovers, and two 1-mile sidings. Turnouts are good for diverging moves at 40 mph. Neither train stops in about 80 per cent of the meets. This territory handles 8 passenger trains and 8 to 12 freights daily, with extra trains in vegetable and fruit seasons.

The Rock Island is now planning to remove second main track on about 80 miles between Topeka, Kan. and Herington. Sidings are to be 3 miles long with double crossovers to the main track near the center of the sidings. This practice is based on experience gained

WHERE BETTER SIGNALING MEANS FEWER TRACKS—A CASE HISTORY

SANTA FE—EITHER DIRECTION ON BOTH TRACKS
Railway Age, December 19, 1931, p. 945
Railway Signaling & Communications, January 1932, p. 13

ROCK ISLAND—85 MILES EITHER WAY ON EITHER TRACK
Railway Age, June 17, 1944, p. 1173
Railway Signaling & Communications, April 1944, p. 198

PENNSYLVANIA—LONG SIDINGS ON SINGLE TRACK
Railway Age, April 26, 1947, p. 845
Railway Signaling & Communications, January 1947, p. 31

C&NW—BOTH WAYS ON EITHER TRACK
Railway Age, April 8, 1950, p. 40
Railway Signaling & Communications, April 1950, p. 217

BOSTON & MAINE—DOUBLE TO SINGLE-TRACK
Railway Signaling & Communications, December 1950, p. 799

MILWAUKEE—SINGLE TRACK REPLACES DOUBLE
Railway Age, February 26, 1951, p. 26
Railway Signaling & Communications, April 1951, p. 233

B&M—CTC ON SINGLE TRACK PERMITS REMOVAL OF SECOND MAIN
Railway Age, September 10, 1951, p. 47
Railway Signaling & Communications, September 1951, p. 601

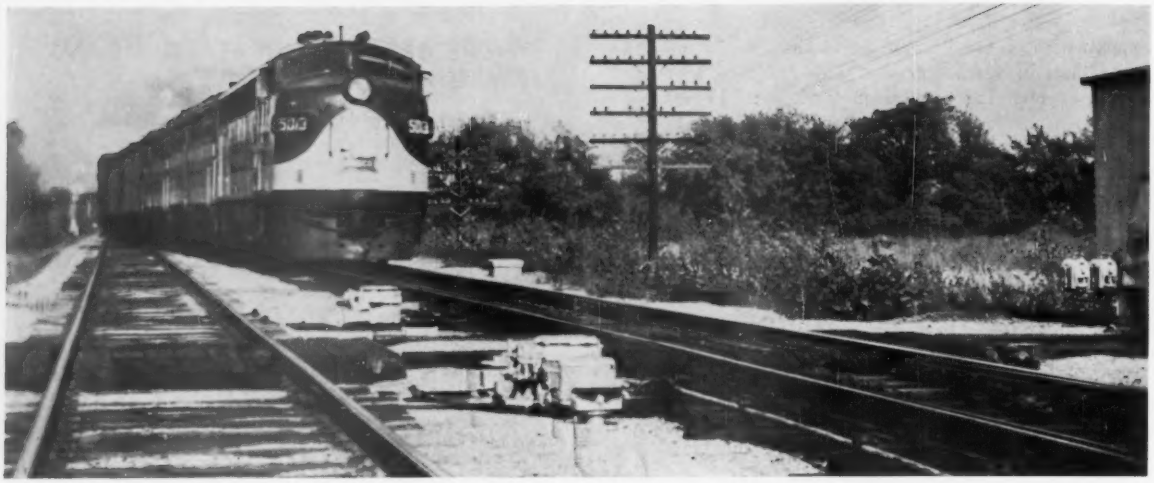
ERIE—DOUBLE TO SINGLE TRACK
Railway Age, October 1, 1951, p. 97
Railway Signaling & Communications, December 1951, p. 847

SANTA FE—80% NON-STOP MEETS ON SINGLE TRACK
Railway Age, December 28, 1953, p. 55
Railway Signaling & Communications, February 1954, p. 34

MP—CTC INCREASES CAPACITY OF DOUBLE TRACK
Railway Age, February 1, 1954, p. 23
Railway Signaling & Communications, March 1954, p. 48

SOUTHERN—COMBINED SINGLE-TRACK AND DOUBLE-TRACK
Railway Age, May 31, 1954, p. 40
Railway Signaling & Communications, May 1954, p. 33

FRISCO—BOTH WAYS ON BOTH TRACKS
Railway Age, January 24, 1955, p. 35
Railway Signaling & Communications, February 1955, p. 36



BY RUNNING BOTH WAYS ON BOTH TRACKS, all trains keep moving; none wait on sidings.

with similar layouts on a project in service several years between Atlantic, Iowa, and Council Bluffs. The sidings are to be about 2.5 miles long and about 12 miles apart on a project which the Grand Trunk Western now has under way to remove one track on 80 miles of double track between Durand, Mich., and Port Huron.

In, Through, and Out, Quickly

An important element in making non-stop meets is for the train which is to take siding to approach and enter quickly —i.e., at 45 mph or perhaps up to 55 to 60 mph. This requires high-speed turnouts and signaling to direct enginemen to use these turnouts at the maximum speed for which they were designed. Several railroads are now using turnouts good for 45 mph and the Erie has some designed for 60 mph.

Obviously, if a train is to enter a siding at even 45 mph for the entire train length, the siding must be long enough for the train to stop. This is further reason for long sidings. Also, the siding must be equipped with track-circuit-controlled intermediate signals, and the limited aspect.

No Sidings at All

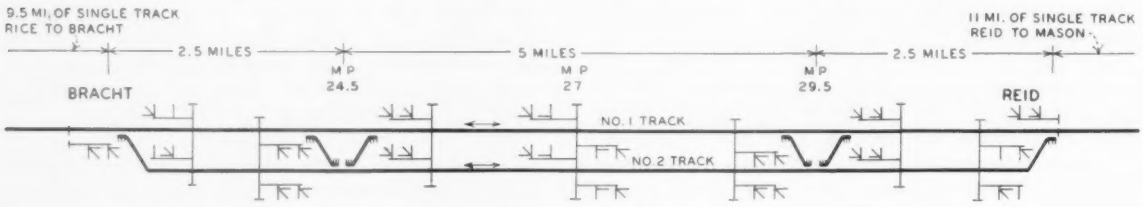
Sidings were eliminated entirely in a 167-mile territory on the Southern between Cincinnati, Ohio, and Tateville, Ky., formerly double track, on which alternate 10-mile sections of second main track were removed, thus leaving sections of two-main tracks about 10 miles long. In each of the two-track sections there are two layouts of double crossovers each about 2.5 miles from the nearest end of the two-track segment, leaving about 5 miles between the crossover layouts.

On the former double track, each track was signaled sidings, with hand-throw switches, were used for running fast trains around slow ones of the same direction. Now trains are kept moving on two-track while making meets or passes. The 22 single-direction sidings were dispensed with; thirteen were removed entirely, parts of eight were retained as pocket tracks or house tracks; and one as part of a yard. Thus the new system includes no sidings used normally for the meeting or passing of trains. This is a new way to run a railroad. During the first year this installation was in service the results were so satisfactory that the Southern is proceeding with another similar project on 70 miles.

To Increase Capacity of Double Track

A somewhat different problem is to increase the capacity of double track to obviate the need for a third main track. For example, the 75 miles of double track on the Chicago & North Western between West Chicago and Nelson, Ill., handles 22 through passenger trains and about 16 through freights daily. The difficulties are increased because trains are bunched inbound to Chicago in the morning and outbound in the evening. During these peak periods, many freight trains were delayed on sidings or held in the yard.

The problem was solved by installing signaling for train movements both ways on each track. New high-speed crossovers are located an average of 6.4 miles apart. In the morning when the preponderance of traffic



TYPICAL LAYOUT OF SWITCHES, CROSSOVERS AND SIGNALS on alternate single-track, double-track arrangement developed by the Southern.

is toward Chicago, faster trains can be crossed over to the other track to run around slower ones, or slower trains can be crossed over to let faster ones go by. In either instance, sections of track that otherwise would be standing idle are utilized to keep all trains moving at normal speed, rather than delaying slower trains on sidings. Similarly, in the evening, when the preponderance of traffic is westward, sections of both tracks are used by westbound trains. Somewhat similar systems of signaling both ways on each of two main tracks are in service on extended sections of the Santa Fe, Rock Island, Union Pacific, Frisco, Illinois Central, Missouri Pacific and Boston & Maine. Under construction now is a project on 185 miles of the New York Central between Buffalo and Cleveland, where two tracks of a four-track line are being removed. The remaining tracks are being equipped with double crossovers spaced an average of 7.3 miles apart, and each of the two remaining tracks is being signaled both ways. The project is expected to pay for itself in approximately six years by annual reduction in maintenance costs of about $3,500 per track mile, and annual tax savings of $400 to $600 per track mile.

Electronics Now Used in CTC

In the projects mentioned above, the switches used by through trains are power operated. Signals at these switches display aspects to authorize train movements without the use of train orders. These power switches and signals in a territory, which may be an entire division of 150 to 200 miles or more, can be controlled by one machine in the office of an operator or dispatcher. This system is known as centralized traffic control.

In these systems only two line wires are required from the dispatcher's office to the remote end of the territory to transmit controls for switches and signals and to bring back information on the position of switches, aspects of signals and occupancy of each track section. Modern electronic techniques have enormously increased both the speed and the capacity of these signal control systems. These advances now make it economically practical to centralize control over extended sections of busy multiple-track main line, including interlockings. Thus, beginning with the NYC's consolidation of control on a whole division, we may look forward to many such consolidations—even to entire railroads controlled from a single headquarters point.

The New Haven is now planning a project for the 157 miles between New Haven and Boston, to include consolidated control of all the interlockings as well as signaling for train movements in both directions on each of the two main tracks. Because of hurricane damage to line wires and pole lines in this area during the past few years, the New Haven is investigating a proposal to install microwave systems for transmission of the CTC controls and the return of indications, as well as for through telegraph and telephone circuits. Completion within the next four years is planned.

On many lines now operating fewer trains at higher speeds, investigation will show that removal of one track of double-track,along with installation of modern signaling, should save money and improve train operations.

Benchmarks and Yardsticks

THERE IS, IN ANY INDUSTRY, a tendency toward isolation. That is, railroad men find it easier to converse with other railroad men than with "outsiders." Not that there is anything but good in intra-industry discussion—there's plenty that railroad men can learn from talking things over with other railroaders. But there are also things going on "outside" that it is useful to know, and some special effort is usually required to tap these "outside" sources.

For instance, most conventions and meetings of railroad men usually consist, largely, of railroad men talking to other railroad men. This is all to the good. But it is even better where, at such conventions of railroad specialists, there are plenty of "outsiders" brought in to supply useful information not yet prevalent on the railroads.

There are two young, relatively small and intensely active railroad organizations that are going great guns in picking the brains (as the popular phrase goes) of informed "outsiders." One of these organizations is the Railroad Systems & Procedures Association—the doings of which are frequently reported in these pages. Another is the Railroad Public Relations Association.

Your reporter attended the recent annual meeting of this latter association—and was struck with the extent and high caliber of the "outside" talent to which the public relations officers exposed themselves. They did not content themselves with exchanging information and opinions with one another—valuable as that interchange is. In addition, they imported a lot of people laden with useful information and ideas which lay beyond those which members of the association themselves could have brought in.

Of course, not all "outsiders" are bearers of useful knowledge. The things some of them know are so far afield from railroad concerns as to make their messages of little value. But the people the public relations officers brought to their recent meeting *did* have pertinent information to impart. The visitors included: Two outstanding teachers in the field of "communications"; the public relations officer of a great utility company; the public relations officers of three railway labor organizations; the publisher of the Denver Post; the president of the NIT League; the chairman of the Eastern Railroad Presidents' Conference; and the governor of Colorado.

A lot more new ideas, useful to railroad public relations officers, were thus made available than would have been so if the meeting had consisted only of railroad p.r. people talking to each other. One thing all businesses, including railroads, need is plenty of yeast; and some of this desirable ferment is best obtained on the "outside." J.G.L.

FIRST RAILROAD STATION DISPLAY of the new automatic hard coal burning equipment was in the Jersey Central's Jersey City terminal. Here, Norman C. Curtin (center), anthracite industry fuels engineer, explains operation of a boiler-burner unit to a commuter, who later bought a unit from a local equipment dealer.

TO BUILD FUTURE TRAFFIC . . .

Railroads Lend a Helping Hand

Cooperation with Anthracite Industry Council helps boost sales of automatic hard coal burning equipment

Little more than a year ago the anthracite industry launched a united program to hold and increase its market for hard coal in heating the homes and buildings of the Northeastern seaboard. The primary means of achieving these objectives was felt to be through vastly increased distribution of newly developed automatic heating equipment which now brings convenience and new economies to the use of hard coal, both in domestic and commercial space heating.

Leading anthracite producing companies, along with coal dealers and their trade associations throughout the Northeastern states, joined the campaign, forming the Anthracite Industry Council. From the start, the industry decided the best way to tell about automatic anthracite burning equipment was to take it out to the fuel consuming public and to demonstrate its advantages. This activity took the form of mobile exhibits, the "Anthracade" and "Coalmobile," which showed modern hard coal burning equipment under fire—for the first time, in most instances—to residents of New York state, New Jersey, Pennsylvania and New England. The new anthracite film, "Black Diamonds," slide films, displays and literature, all were made a part of these appearances.

Anthracite industry engineers and local fuel merchants manning the exhibits were literally swamped with the surprising public response. Veteran coal men proved to their satisfaction that there does exist a tremendous interest in new equipment, public acceptance of which would maintain and expand anthracite tonnage for years to come.

But while "Anthracade" and its attendant publicity provided great impact on consumers in smaller towns, the industry felt there was also the possibility of good results in metropolitan areas, where the greatest potential coal market exists.

Why not, reasoned James Watson, coal traffic manager of the Jersey Central Lines, stage exhibits of the new anthracite burning equipment in railroad passenger terminals? Few allied industries have a greater interest in efforts to hold and expand coal tonnage than do the railroads; few places in metropolitan areas continuously contain a larger number of persons than do railroad passenger terminals.

Railroad cooperation in the anthracite industry's program got under way with a simple display of two pieces of automatic equipment at the Jersey City terminal of

ONE OF THE LARGEST and most successful showings to date was a six-day display, last February, in the Pennsylvania station at Newark, N. J., which drew many interested viewers.

HOW AN AUTOMATIC BURNER for anthracite works is explained by J. A. Fisher, president of the Reading, during the three-week exhibit at Philadelphia's Reading Terminal.

the Jersey Central for two weeks last October. Mr. Watson and Nathan James, CNJ director of public relations, arranged for announcements of the exhibit in other Central waiting rooms. Newspaper publicity from the Anthracite Information Bureau reached communities in the area. Two equipment representatives hopefully manned the exhibit—which included names of coal equipment dealers in the Jersey City territory along the CNJ line.

The reception is described as "overwhelming!" Thousands of passengers swamped the exhibit, picked up literature and queried the experts on hand. The two men couldn't handle the demand for information and called for help from local dealers. Prospects were developed on the floor that resulted in some of the first sales of automatic hard coal equipment in various towns. In a feature article on the display, the Jersey Journal highlighted the lower costs of "rice" anthracite, used in automatic equipment, over liquid and gaseous fuels in Hudson county. The industry, local fuel dealers and the railroad were delighted; results far exceeded any and all expectations.

Next, the Lackawanna offered similar facilities for an anthracite equipment display for two weeks at its Hoboken passenger terminal. Results, proportionately, were even greater than at Jersey City. and the services of four equipment representatives were necessary to handle all questions during the heavy traffic period.

From this start, railroad cooperation literally blossomed; results from each exhibit were greater than from the previous ones. At Boston, consecutive exhibits in the New Haven-Boston & Albany South Station (one month), and the Boston & Maine's North Station (two weeks), ending in the middle of February, were reported by local observers as the best promotions for hard coal ever held in New England. There, the display was expanded to include five pieces of home heating equipment, and a special slide film demonstrator, and staffing was maintained 12 hours daily.

In the arcade of Newark's Pennsylvania passenger terminal, February 14-19, units were sold right off the floor. Commuters from Hudson & Manhattan tube trains as well as PRR suburban and main-line passengers were attracted to the display.

Philadelphia's Reading Terminal opened a major three-week exhibit March 14 with state officials, railroad and anthracite leaders present. One equipment salesman reported that after four days at the exhibit he had enough good leads to keep him busy for six months.

Other exhibits have been held, or are being planned, at the Pennsylvania station in Trenton; at Erie stations in Jersey City and Paterson; on New York Central property in New York City, and in upstate New York railroad terminals, including the New York Central-Delaware & Hudson station in Albany. Appearance of the "Anthracade" outdoors in station plazas and parking lots is being considered by some railroads; it has already appeared at some CNJ stations, such as Somerville.

Local coal retailer sentiment concerning the exhibits was expressed by Daniel Moretti, president of the New Jersey Coal Dealers' Association: "This is an eye opener. Everyone in the industry should be here to see the tremendous public thirst for information about hard coal heat and automatic equipment!"

Best of all, from the anthracite industry's viewpoint and that of the railroads, the apparent success of the railroad station displays is confirmed by the sales record of automatic hard coal burning equipment. For the first time in many years sales of such equipment are up over the same period of the previous year; for a five-month winter period the increase was more than 40%.

SOON TO BE REPEATED, this was the scene at Dyersburg, Tenn., late last July when, at the outset of their six-weeks course in railroad operations and management, the two exchange professors became acquainted with some of their mentors.* The assignment of these "students" and "teachers" was to forge a new link between . . .

Railroading and the Campus

A well-tested program, called the college-business exchange, is breathing life into railroading as a classroom subject and bringing manifold benefits to the industry and to education

How can railroads win greater understanding from the public?

How can management be assured of a steady influx of younger men with management potential?

Can the present methods of railroad management be improved?

A disarmingly simple idea embodied in an eight-year-old program called the college-business exchange holds a key to questions like these. Once termed "a six-week's look over management's shoulders," this program aims to give college and university professors a short but intensive course in day-by-day business management.

Sponsored by the non-profit Foundation for Economic Education, the program had its modest beginning in 1948 when nine teachers from seven different colleges and universities spent part of their summer holiday sitting in on the management of six different business firms. Two years later, the Santa Fe became the first railroad to participate. The Illinois Central joined in 1952. This year these roads are being joined by the Great Northern and the New Haven. Meanwhile, the program has grown to the point where last year 72 different business firms undertook the training of 121 teachers from 90 different colleges and universities. Applicants for the program numbered nearly 500. Those who have taken it are universally enthusiastic about their experience.

When asked to comment on its part in the program, IC President Wayne A. Johnston told *Railway Age*:

"People in academic circles frequently seem to have

* As Dr. Westmeyer (extreme left) and Dr. Zook (in dark suit) step off the business car of General Manager Otto H. Zimmerman (next to Dr. Westmeyer), Superintendent F. K. Stanford (center) introduces them to Trainmaster Sebra Evans (behind Dr. Zook), Section Foreman G. E. Noblin (shaking hands) and Division Engineer N. W. Kopp.

the impression that railroads are not alert to possibilities for progress in transportation. We like to think that no professor who has studied the operation of the IC goes away with such belief. When they return to the campus they carry back goodwill for the whole railway industry.

"Fully as important, we on the railroad benefit from the frank views expressed by these visitors. Their comments and recommendations have stimulated our thinking and encouraged us to re-examine our ways of doing things. The college-business exchange program is truly a mutually beneficial arrangement.

What Professors Will Reflect

Summing up the experiences of nearly 500 teachers who have now taken part in the program, Dr. W. M. Curtiss of the foundation says they most frequently mention having:

1. Learned first hand the internal workings of a business;
2. Gained an insight into management problems;
3. Checked some of their theories and beliefs against actual experience in business; and
4. Developed case material for later use in classrooms and research.

Dr. Curtiss points out that the course is too short to permit mastering technical details. What the teachers are more interested in, he says, are problems of pricing, cost analysis, incentive systems, business research, finance, industrial and public relations, and management communication.

Last year more than half the candidates for fellowships were teachers of business subjects—management, marketing, retailing, finance, industrial relations and others. About one-fourth were economists and the remainder handled subjects ranging from political science, government and history to English and speech. A few fellowships have been awarded to women and some have been awarded to repeaters, although these take a different industry for their second course.

Final selection of the candidates rests with the business firms, which must also work out program details and foot the bill for each man they accept—transportation and living expenses to boot. While some firms have limited their participation to one fellow per year, most have found it advisable to have two or more. (One had ten last year.) They found that the fellows tend to assist each other and the benefits of the program can be extended to two or more with little additional expense or trouble.

What's Ahead on the IC

On July 9 this year Dr. W. T. Ashby, associate professor of business education and office administration, University of Mississippi, and Dr. Irvin Lee Heckmann, Jr., instructor in management, University of Illinois, embarked on a program worked up and refined by the Illinois Central during the past three years. To see what lies ahead of them, and for an idea of benefits which the railroad industry and the field of education are mutually deriving from the program, *Railway Age* reports on the following pages the experiences and comments of the IC's 1954 "students"—Dr. P. D. Zook and Dr. R. E. Westmeyer. The article by Dr. Zook was written especially for this issue while the remarks of Dr. Westmeyer are taken directly from his follow-up report and commentary addressed to Mr. Johnston.

A Railroad Becomes a Classroom

HOW AND WHY . . .

"The IC is making a significant contribution to the education of American youth. I would like to see other railroads offer assistance like this"

By DR. PAUL D. ZOOK
Associate Professor of Economics
and Business Administration
Southern Methodist University

Last July 26 we found ourselves on the southbound main of the Illinois Central heading out of Chicago with a "high green" signal. Wayne A. Johnston, president of the IC, had cleared the way for Dr. Westmeyer and myself to tour his railroad. We were heading for a six-weeks study of current railroad practices and for study conferences with top IC officers in all types of work. The IC afforded us a splendid opportunity to observe each of its departments at work. Officers gave us their time freely and were eager to discuss both their functions and their problems. Through them we gained a most valuable insight into how a major business enterprise functions and what its problems are. We also came to understand better the businessman's point of view. In addition, the tour supplemented our own theoretical knowledge with practical experience. Our theories thus came to have greater significance.

New Meaning for Theories

I found an example of this in the field of internal communications. In school we teach that, if a firm is to operate efficiently, top management must obtain from its operating units the information, accurate and complete, which is essential to the formation of sound policy. On the other hand, management must transmit to the

"The theory of production nicely illustrated for us in terms of railroad progress."

Paul D. Zook

operating units timely information which will permit them to execute corporate policy effectively.

Our round-trip between Chicago and New Orleans with General Manager Otto H. Zimmerman showed us clearly how the IC's operating department maintains those essential lines of communication. As the general manager's office car entered each division, local officers—division superintendents, trainmasters, engineers and others—boarded it for conferences with Mr. Zimmerman. We saw that this was how he learns of significant local developments. And at the same time, we watched him present the management's point of view within which the local officers could discharge their responsibilities. (We learned too, incidentally, that this procedure offers local officers an opportunity to sit at the general manager's dinner table. Furthermore, it provides them a chance to smoke his cigars. By "scientific" survey, we found New Orleans to be one and one half cigar boxes from Chicago.)

Times Have Changed

As we watched the railroad unfold behind the business car, it was easy to recall—with some degree of nostalgia—boyhood memories of railroad track gangs. These include one in which two muscular individuals labored with a long-handled wrench to tighten the nuts in rail joints. Now, we found, these are tightened by a motor-driven machine; that one man operating the machine could do the work of six and two-thirds men using hand wrenches and muscle-power. Labor had increased in cost relative to capital with the result that it was displaced—the theory of production nicely illustrated for us in terms of railroad progress.

One thing my six weeks of "railroading" gave me was a greater appreciation of the values IC officers gain by performing a variety of tasks and how that experience

"I was pleasantly surprised at the almost complete absence of a tendency to place the blame for all railroad ills on the shoulders of the national government."

becomes the basis for greater responsibilities. Is it possible, however, that railroads generally place undue emphasis on length of service as the basis for recognition for promotion? There may be positions where it would be economical to put relatively less emphasis on length of experience and relatively greater emphasis on native capacities. I hasten to add that on our trip to New Orleans we found that many of the responsible local IC officers in the operating and engineering departments are young men. Furthermore, we found many examples where young men have been placed in responsible positions in other departments.

No Excuses Proffered

I was pleasantly surprised at the almost complete absence among IC officers of a tendency to place the blame for all railroad ills on the shoulders of the national government. As a student of economics and transportation I recognize that the root of some of the railroads' difficulties does lie in existing industry-government relations. However, the speeches and writings of some railroad people lead us as outsiders to think that the industry believes that almost its *only* problem, and certainly its *only* salvation, lies in securing a change in the relationship.

I believe that such an attitude is dangerous—if it is representative of the carriers' point of view. It is dangerous if it leads the roads to ignore their responsibilities for their own salvation; if it leads them toward eagerness to shift the burden for their difficulties to the government. I further believe that this attitude will not find the sympathetic audience among the public that is hoped for.

Was The Tour Worth It?

Did our six-week tour of the railroad have value?

Is direct contact with actual problems truly an effective educational technique?

Can the effectiveness of our educational system be improved by offering university and college teachers a chance such as we had?

I would answer "Yes!" in each case.

For my part, the program was an unqualified success and the IC's contribution cannot be doubted. It is making a significant contribution to the education of American youth.

I would like to see other railroads give like assistance. While the summer program of the foundation is an excellent method for offering these opportunities, it needn't be the only means of affording them.

I am firmly convinced that railroads can make great contributions to American education and American society by promoting more and better industry-education contacts. I am convinced also that such contacts would have value for the railroads themselves, for what I have learned from the Illinois Central is now reflected in my teaching.

Whence Future Management?

Railroads are almost alone in their failure to recruit the college man, yet railroading may be more attractive to him than many other industries

By DR. R. E. WESTMEYER
Professor of Business Administration
University of Arkansas

DEAR MR. JOHNSTON:

Although I have been studying in the field of transportation for more than twenty-five years, never until now have I appreciated the tremendous managerial and communication problems that a railroad management faces in running a business sprawled out over several thousand miles in more than a dozen states.

While I do not belong to that school of thought which always seems suspicious of the motives and intentions of big business, still it is helpful to observe in some detail the inner workings of a big business. And it is comforting to learn first-hand that big business—at least as represented by the Illinois Central—has a conscience and an integrity of which it need not be ashamed.

At one time it was common to criticize railroad management for resistance to change, but by and large this criticism is not as valid today as, say, twenty years ago. There is one area, however, in which railroads still lag far behind industry generally, and that is in the recruitment and training of the men who one day will be called upon to assume managerial responsibilities. A great many industrial concerns now have highly organized programs for recruiting and training college graduates, and the number of companies sending representatives to college campuses increases year by year. The railroads are almost alone in their failure to follow this trend.

What College Men Offer

Just what is there about a college education that has led businessmen in increasing numbers to look to the colleges for future managerial talent? There are many reasons, but as far as my own field of business administration is concerned, these thoughts in particular come to mind:

In this age of specialization we recognize that a background of knowledge in some particular phase of business activity (transportation, for example) is a valuable asset, and so we give the student an opportunity to specialize to a greater or lesser degree in some one or more fields. But primary emphasis remains on the need for an understanding of all the basic business and economic institutions and how they fit together to provide a sound and smoothly working free enterprise business system. The goal of college training in business administration (and probably in other fields as well) is to develop the student's ability to think, not only in terms of how but also and above all in terms of why. It seems to me that this is the kind of training that makes for the development of superior managerial talent.

Why is it that the railroads in general, unlike other types of big business, have not sought to improve the quality of their potential officer personnel?

I am going to stick my neck out and say that many (but certainly not all) men now occupying top management positions on railroads do not realize the tremendous changes that have taken place in education since they entered railroad service. Many of these men went to work for the railroads after or just before graduation from high school at approximately the time of World War I. At that time graduation from high school was a distinct achievement, and few people even thought about the possibility of a college education. But between then and now there has been a five-fold increase in college enrollments as compared with a 60% increase in population, and there are as many young people enrolled in

"I suspect that the railroads, in addition to failing to get the college graduates, are not even getting as high a quality of high school graduate as they did thirty years ago."

"Starting salaries on the railroad are adequate or nearly adequate to attract college graduates, and in my school certainly there are good young men who are not afraid of starting at the bottom and getting their hands dirty providing they can see some reasonable prospect for advancement."

colleges today as were enrolled in high schools in 1920.

Thus there has been a general upgrading of the education of our young people, and the railroads, in my opinion, have failed to take advantage of this fact by continuing to rely on the high schools for managerial talent. There are so many people going to college today that it is a common observation among young folks that "you can't get anywhere anymore without a college degree." And it is reasonable to assume that more and more of the *better* high school graduates are going on to college. Hence I suspect that railroads, in addition to failing to get the college graduates, are not even getting as high a quality of high school graduate as they did thirty years ago.

Are These Objections Valid?

I have asked many men employed by many different railroads why their companies do not employ more college graduates. The most common answer I get is that the seniority rules make it impossible to attract college men because they must begin at the bottom and can advance only with years of service. I think that is a lot of bunk! A young man should be willing to start at the bottom if he understands that he will not be lost in the shuffle and that if he shows he has what it takes, he will be given a chance on the lowest excepted or partially excepted position at the first opportunity. There may be problems involved that I have overlooked, but I am sure that they can be overcome if the will to overcome them exists.

One objection to bringing in college men is the belief that a college graduate expects to start at the top with a high salary and an exaggerated idea of his own importance. That such men exist, I do not deny, but their existence should not blind us to the solid virtues of what I believe to be the majority of college graduates. Starting salaries on the railroad are adequate or nearly adequate to attract college graduates, and in my school certainly there are good young men who are not afraid of starting at the bottom and getting their hands dirty *providing they can see some reasonable prospect for advancement.*

Calibre Slipping?

Another objection is that such a program is hard on the morale of existing employees. While this objection may have some immediate validity, it is of uncertain validity in the long run. Certainly railroads are not getting the college men, and probably more and more of the better high school graduates are being attracted to college campuses. Even those top notch high school graduates who do find employment with the railroads would be discouraged, I should think, by the slowness of promotion under present policies, and soon seek employment elsewhere. In the years to come the railroads are going to need the very best talent they can get, and this ought to be the main goal in seeking new employees. Furthermore, the employment of college graduates need not close the door to advancement of bright young men without college educations. On the contrary, it might provide a strong incentive for them to improve their own education, to the benefit of the railroad as well as themselves.

Still another widely voiced objection is that college graduates lack experience and that it takes years of experience before a person can assume a position of any responsibility with a railroad. An extreme case in point is the position taken by one railroad officer we met who seemed to feel that the four years his son had spent in college were of little value as compared with the four years of practical experience he would have gained by not going to college.

I think that there is a tendency to place far too much emphasis on experience and far too little on potentiality for development. A man who understands the overall pattern of business—and who has been trained to think in terms of the relation of a unit of work to the whole—can grasp essentials far more quickly than one without this training and so does not need long years of experience to prepare himself for a responsible position. Furthermore, he is likely to possess a breadth of vision which no man can attain by experience alone.

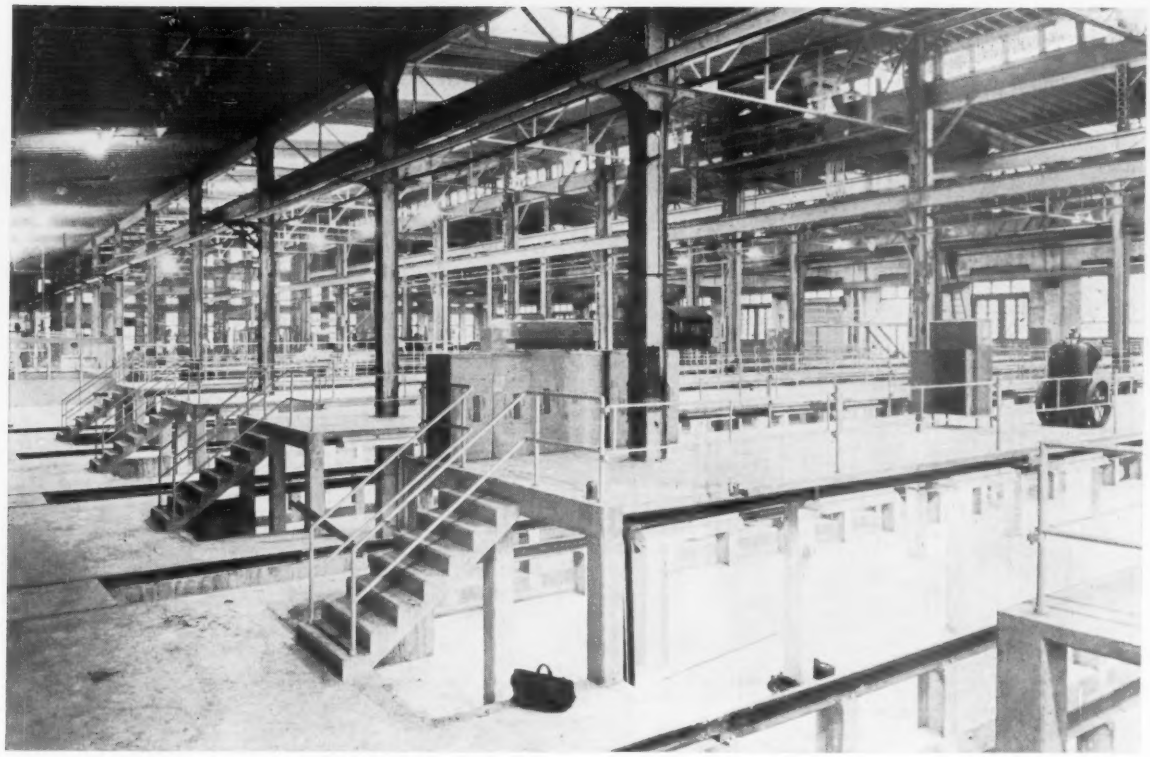
Start with Operating Department

The Illinois Central has made more progress than most railroads in recruiting and training potential managerial talent and this fact presents a challenge and an opportunity for bold experimentation that ought not to be overlooked. What you need now, Mr. Johnston, is a cohesive policy which will encompass the whole railroad and which will receive the wholehearted support of top management. And the place to start, in my opinion, is the Operating Department, because it employs the bulk of your people and because it is the heart of the railroad.

A number of years ago I concluded that the Operating Department was the worst possible place for a college graduate to break into railroading because of the extent to which it is subject to union rules. But six weeks on the Illinois Central changed my outlook completely. The salaries you pay yard clerks and beginning engineers are competitive with those paid by industrial and commercial concerns now actively soliciting college graduates, and

(Continued on page 54)

"I concluded a number of years ago that the operating department was the worst possible for a college graduate to break into railroading . . . but six weeks on the Illinois Central has changed my outlook completely."



SERVICING-TRACK area of shop is all new except for shell of building. Four stub-ended tracks are supported on steel pedestals and served by concrete platforms. Overhead crane has been installed over tracks.

IN THIS MODERN FACILITY FOR DIESELS . . .

Only the Shell Is the Same

Recently completed modernization program at Spokane affords the Great Northern its largest and most complete locomotive repair and overhaul layout west of the Rocky Mountains.

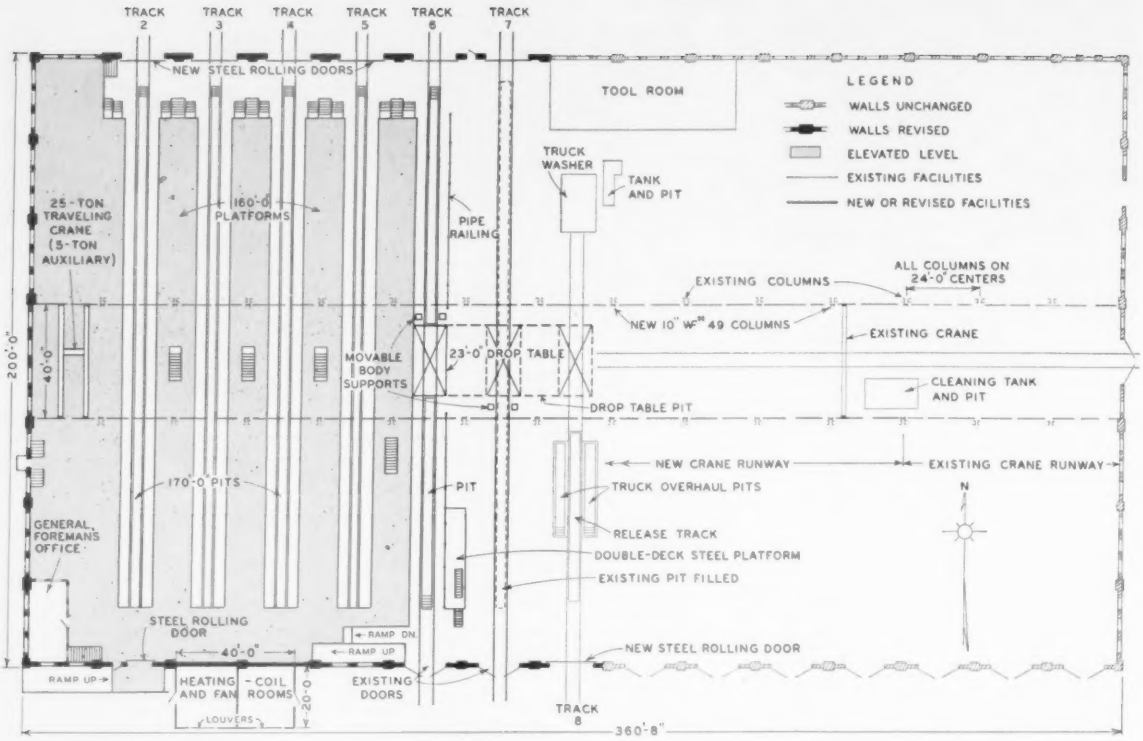
LOCOMOTIVE SHOP, built in 1912, is a 200-ft by 360-ft steel and brick structure with a double-deck clerestory roof. Remodeled portion has rolling steel doors serving new track openings in north side of building.

The birthplace of the Great Northern's noteworthy R-1 and R-2 Mallets has given way to changing times. The Hillyard locomotive shop at Spokane, Wash., has been converted for servicing and repair of diesel engines.

The new diesel shop, which is part of a $665,000 modernization program in progress at Spokane, rose almost literally from the dust of the old locomotive shop constructed in 1912. The conversion makes for a highly interesting utilization of an old building, everything except the building shell being new.

The building is a 200-ft by 360-ft steel and brick structure. Two clerestory roofs, one on top of the other, run longitudinally down the center. The old shop layout originally provided stub-ended transverse tracks, access to which was provided by a transfer table extending along the south side. The new diesel shop is in the west half of the building, with new tracks entering the shop transversely from the north side.

Included in the diesel shop are four servicing tracks,



NEW FACILITIES are located principally in the west half of old locomotive shop. Building walls were changed somewhat to provide new track entrances and window areas and to eliminate unnecessary entrances on south side.

carried above the depressed floor level on steel pedestals and which are served by elevated concrete and steel platforms.

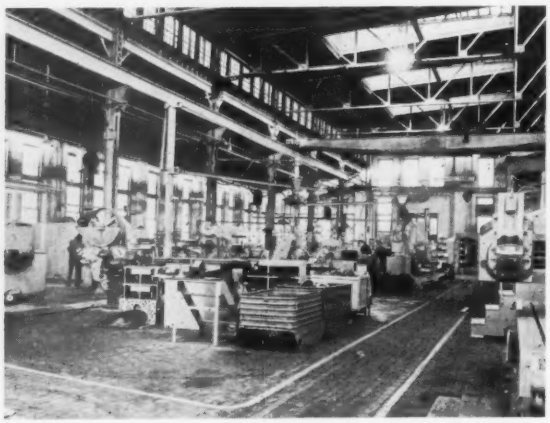
Other facilities include a pit track; a Whiting 100-ton drop table serving two engine tracks and a release track; a 25-ton traveling crane; four traveling cranes of lesser capacity; and lunch room, locker room, shower and toilet and office facilities.

In addition to servicing diesels, the Hillyard shop will share with the diesel shop at Havre, Mont., heavy maintenance and overhaul work for the road's Western lines. The GN is now completely dieselized west of Minot, N. D., making it necessary to have more than one shop in that territory.

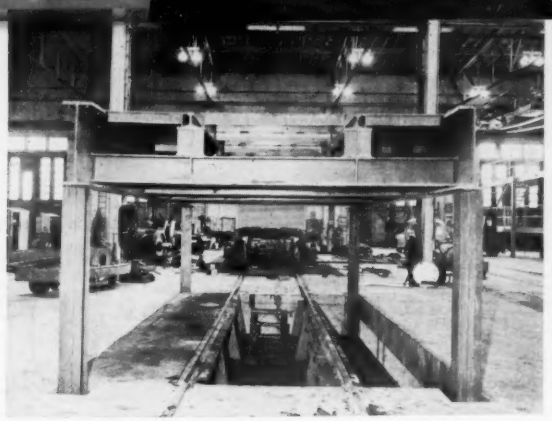
Under the same roof and adjacent to the diesel shop is a portion of the old machine shop which also has been modernized somewhat.

New equipment for locomotive repair has been installed in the machine shop area to take care of repairs to engines, generators and trucks and wheels, as well as heavy body repairs. Included in the machine shop modernization was the extension of an existing crane runway to give overhead crane service through the entire length of the diesel shop and machine shop area. A cleaning

LIGHTING in pits is furnished in abundance by rows of fluorescent fixtures along sides of platforms.

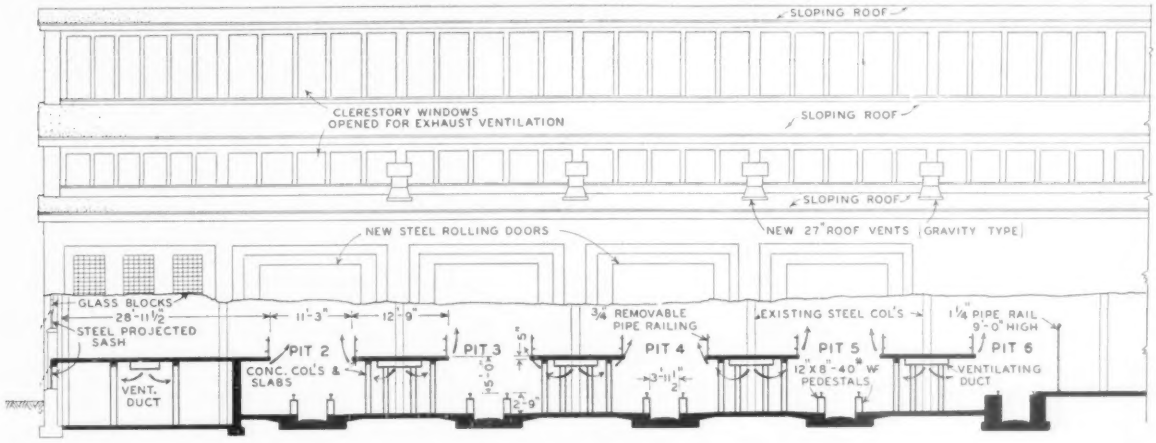


MACHINE SHOP section of building has been equipped with a number of new machines for repair of diesel parts.



COVER for drop pit on release track also serves as an elevator for raising trucks to car-floor height to be rolled onto flat car. When drop table comes up it engages steel columns at corners, thereby raising cover also.

DROP TABLE of 100 tons capacity serves two engine tracks and a release track. Type HV movable body supports carry engine weight while trucks are lowered into pit, then transferred to release track for repairs.



CUT-AWAY of side wall shows how heated fresh air is blown out from ducts under elevated platforms. Air circulates throughout pit area, thence is exhausted through vents in roof and windows in double-deck clerestory.

tank and pit was also installed in the machine shop beneath the traveling crane.

The servicing tracks enter the building from the north side and are all stub ended. The track entrances to the building were originally window areas. These were removed, new lintels and jambs installed, and the openings fitted with steel rolling doors. Other changes to the building shell included closing up, with brick and glass-block masonry, existing door openings which were no longer needed. Along the west wall where the lunch room, locker room, etc., are located, projected-type steel windows provide adequate light and ventilation.

Overhead lighting in the shop area is provided by mercury-vapor lamps, while in the pits fluorescent lighting has been used. Lighting in the offices and welfare areas is also by fluorescent fixtures.

How Shop Is Ventilated

One of the outstanding features in the new shop is its elaborate heating and ventilating system. The system incorporates pressure, rather than vacuum, principles in that fresh air is forced through ducts running underneath the elevator servicing platform. Diffuser outlets are located at intervals along the bottom sides of these ducts. As the air emits from the diffusers it circulates throughout the pit areas, then moves upward and out through gravity ventilators and clerestory windows.

Fresh air for the heating-ventilating systems is sucked in through louvers in the outside walls of fan rooms attached to the south wall of the shop. There are two fan rooms side by side, each with a 15-hp fan. As the fresh air is pulled in through the louvers it is heated as necessary by two sets of Aerofin steam coils. An automatic damper is located between the steam coils and the louvers, closing when the fans are not in operation.

The fan rooms are of reinforced-concrete construction and serve as plenum chambers. From each fan room the heated air is forced down through reinforced-concrete ducts which carry the fresh air under the floor into the diesel shop area. The main concrete ducts split inside the shop area to distribute the air to various pit ducts. At the ends of the elevated platforms risers carry the incoming air from the underfloor concrete ducts to the metal ducts under each platform.

The heating-ventilating system is used for both summer and winter operation. The entire system is thermostatically controlled with both the outside air temperature and the desired inside temperature being taken into consideration.

In addition to the diesel shop project, the modernization program at Hillyard included construction of a new foremen's office; construction of diesel wash racks and auxiliary facilities; and installation of new facilities for fueling and sanding. Another project also being carried out at that point is the razing of a portion of the present roundhouse and the conversion of one of the shop buildings for repair of railroad work equipment.

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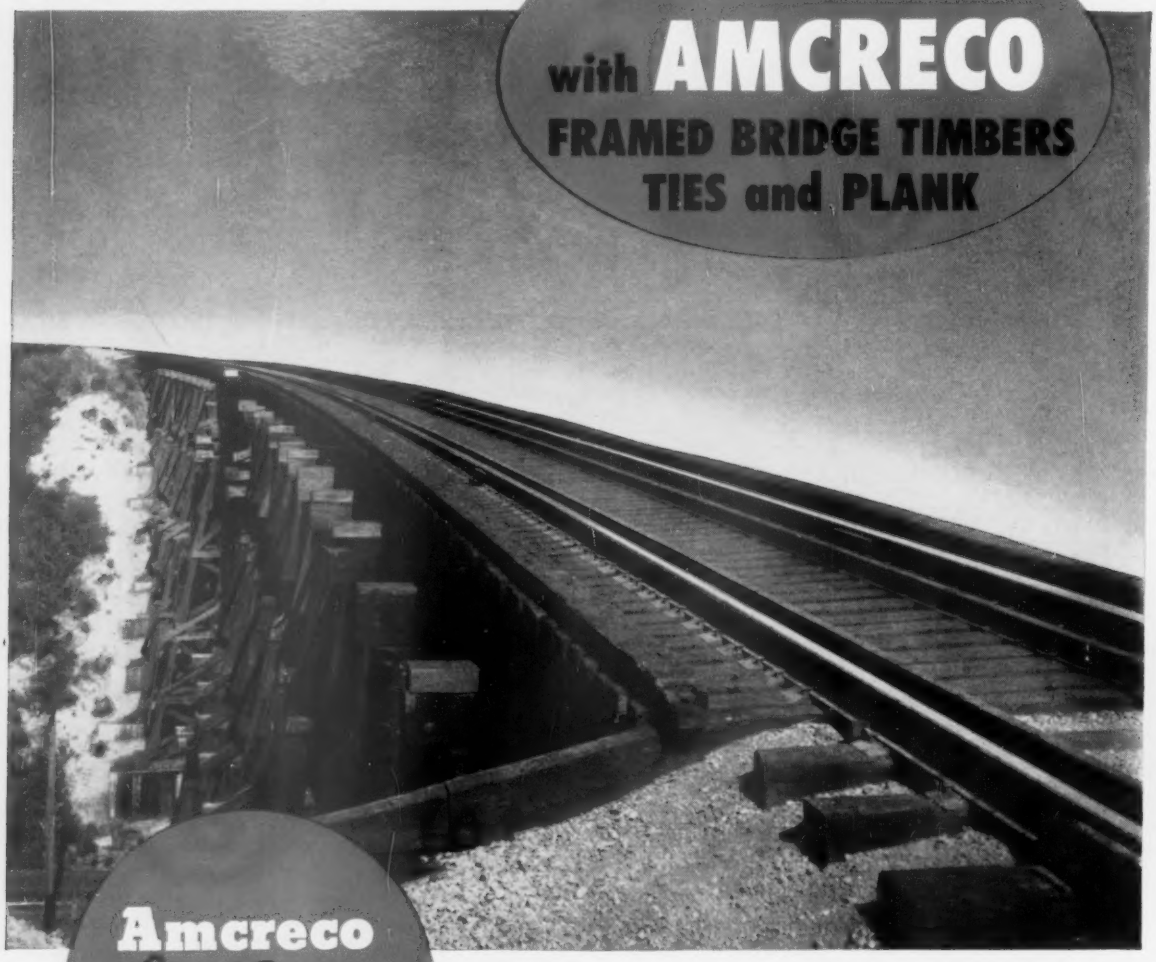
with AMCRECO FRAMED BRIDGE TIMBERS TIES and PLANK



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COMMISSIONER MITCHELL advocated up-to-date regulation, his general proposition being that "regulation where an industry is a monopoly is quite different than regulation where an industry is engaged in competitive business."

PRESIDENT GROTZ of WM urged that all railroaders familiarize themselves with the Cabinet Committee report and become "persuasive advocates of its sound reappraisal of the requirements of public interest in transportation.

DIVISION CHAIRMAN PEET paid tribute to members of the AAR staff who "keep this organization going," and told the accounting officers that they must take the lead in exploring more efficient ways of performing the industry's paper work.

Updating Regulation Urged

Commissioner Mitchell of ICC tells accounting officers that transportation is not regulated now, when only one-fourth of the trucks and 10% of the water carriers are affected

Transportation is not being regulated "when we regulate only one-fourth of the trucks and only about 10% of the water carriers," Interstate Commerce Commissioner Richard F. Mitchell said in an address at the meeting of the Accounting Division of the AAR.

The convention, the 61st annual meeting of railway accounting officers, was held June 27-30 at the Ambassador Hotel, Atlantic City, N.J., and was attended by 814 members and guests. Presiding was the division's chairman, C. D. Peet, chief accounting and finance officer, Missouri Pacific lines, who was also a speaker, delivering the

(Continued on page 50)

WHAT COMMISSIONER MITCHELL ADVOCATES.

"At no time have I advocated deregulation, nor do I now. What I really advocate is *more* regulation. You hear the cry, 'we don't need changes in regulation.' But I say to you, when we regulate only one-fourth of the trucks upon the highways of the nation, when we regulate only about 10% of the water carriers upon the waterways, in reality we are not regulating transportation. The great bulk of it is free from the handicaps and difficulties of regulation. One million four hundred thousand trucks upon the highways and only 350,000 subject to regulation, and you tell me we don't need to bring regulation up to date! If regulation is good for 350,000 trucks, it ought to be good for the better than one million unregulated trucks speeding down the highway.

"I believe in bringing regulation up to date. . . . In my judgment many of our rules and interpretations need to be rewritten and reinterpreted in the light of existing conditions in the transportation industry in America today. The railroads had an absolute monopoly for better than 30 years and, frankly, they were a little high-handed and took advantage of their position. As a result, the Congress passed certain laws to protect the public, and the commission interpreted those laws in the light of the prevailing situation, to wit, the monopoly of the railroads. Many of those laws are still on the books, but the transportation industry has completely changed. It is now a highly competitive business. . . .

"But in face of the change in transportation from a monopoly to a competitive system, I find regulatory laws and interpretations have failed to keep pace with changing conditions. . . . The purpose of regulation is to build a transportation system able to serve the nation in times of peace and in times of war. Discrimination was found everywhere when regulation was first established. . . . But not so today. Competition has practically eliminated discrimination as one of the main reasons for regulation.

"Today the most important thing is the question of rates, and to maintain rates at a fair basis regulation must be continued. Rates are effectively reduced by competition, but there comes a time when competition becomes ruthless and destructive.

"I believe the rails must meet the competition which confronts them. The segment of transportation which can furnish the best service is entitled to the business. . . . But I want the regulatory laws and the interpretations thereof to be the same for all segments of the transportation industry."

BENDIX SCOOPS RAILROAD RADIO FIELD WITH 64 VOLT DC POWER SUPPLY!

THIS ANNOUNCEMENT APPEARED IN 1952

GOOD NEWS? You bet it's good news and to every railroad communications technical staff. Bendix now fills the only missing link in complete railroad radio communications.

This new engineering development . . . means that you can now operate Bendix (and Bendix equipment only) on 6 and 12 and 64 volts DC without the need for an auxiliary converter.

This means a savings in original cost never possible before this announcement.

Write today for further details . . . No obligation whatsoever. After months of research and engineering, this is the kind of news we're glad to pass on.

SEE THIS NEW UNIT AT THE BENDIX EXHIBIT AAR CONVENTION EDGEWATER PARK, MISSISSIPPI

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THE RACOR Snow Blower

(Patent Pending)

EASY, SAFE AND ECONOMICAL SNOW REMOVAL FROM SWITCHES BY COMPRESSED AIR

Easy to Install • Easy to Maintain • Safe and Economical to Operate

ADAPTABLE TO REMOTE CONTROL ELIMINATES THE NEED FOR MANUAL ATTENTION DURING SNOW STORMS

The RACOR SNOW BLOWER is a mechanical device designed to keep switches clear of snow by the use of intermittent blasts of compressed air. Simple in construction, it consists of a source of compressed air, an air filter, an anti-freeze injector, a cycling tank, an air switch, an air valve and two manifolds equipped with adjustable nozzles.

SOURCE OF AIR SUPPLY

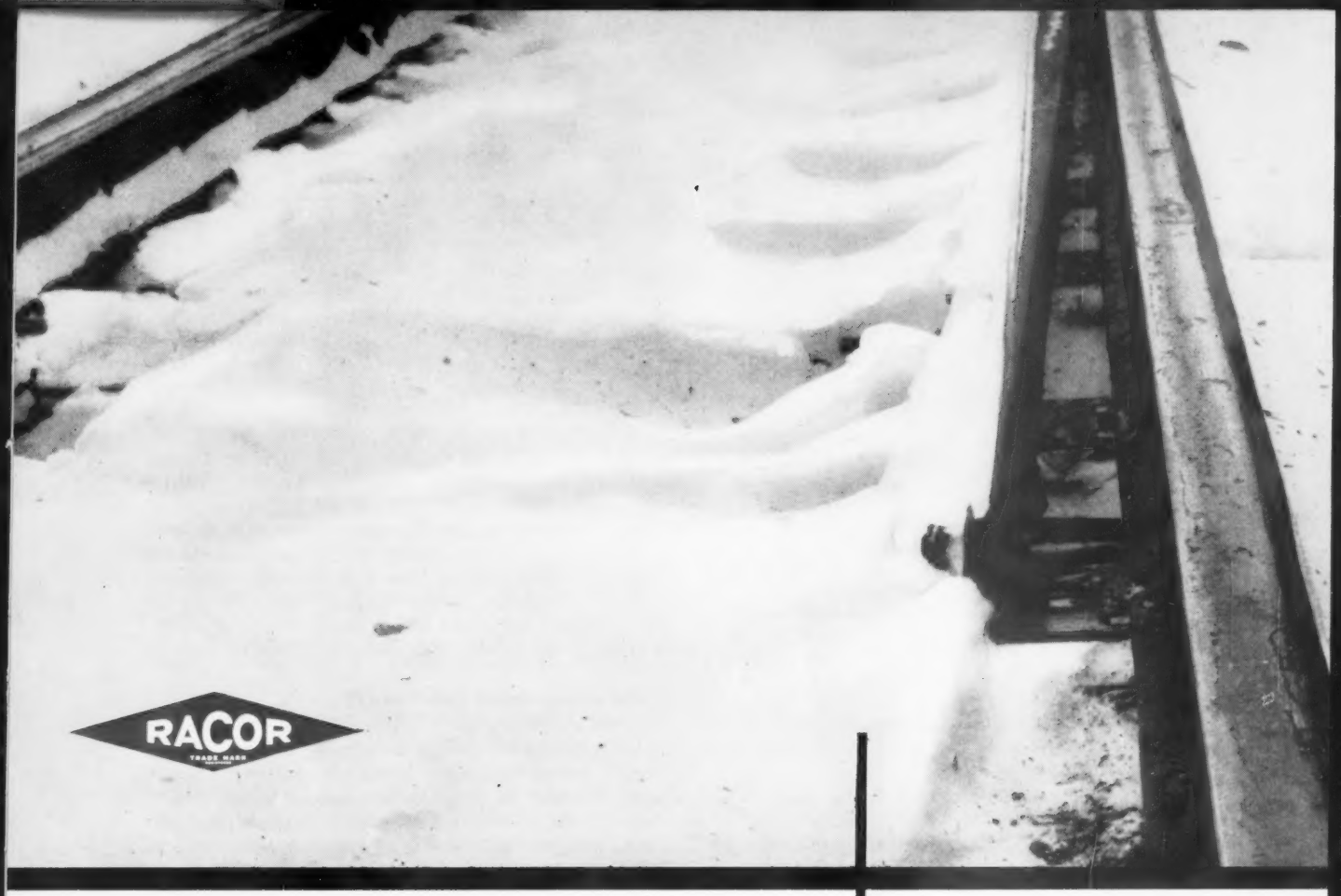
The compressed air can be supplied either from a small individual compressor for a particular switch or from a larger compressor with sufficient capacity to serve several switches; or from a central source of supply. The manifolds are attached to the stock rails of switches in such a manner that there is no interference when the switch points are thrown.

HOW IT WORKS

The air passes through the filter, the anti-freeze injector, the cycling tank and then through connecting pipes into the manifolds. The air speed created by the blowing cycle, at a rate of approximately sixty miles an hour, removes snow, dirt, etc., out of the opening between the switch points and the stock rails. The air switch is set to operate the air valve when predetermined pressures are reached in the cycling tank. This cycle is continually repeated and can be varied within certain limits, but the usual cycle develops a blowing time of about one-tenth of the time of the cycle — the blowing taking about four seconds with the cycling tank re-charging in about thirty-six seconds. This timing was found to be adequate to keep a switch clear of snow during a total snowfall of 64½" in six days, with an air supply of approximately 100 p.s.i.

Electric cycling can be substituted for pneumatic cycling by using an electric timing device that controls a solenoid valve. This timing device, when employed, is connected directly to the air supply and will eliminate the use of the cycling tank.

RACOR engineers will gladly recommend the type of cycling best suited for any particular location.



ADVANTAGES OF RACOR SNOW BLOWER

The RACOR SNOW BLOWER has many advantages, the more important being: *Extremely low operating costs* — by far the lowest of any other snow removal method. *No melted snow*, hence no problem of drainage or icing or necessity of removal of ice formed from melted snow. *No flame to blow out* from high winds or passing trains. *No danger of fire* as a result of leaking oil from tank cars or from diesel engines that might stop over switch. *No chance to burn up ties or insulation.* If desired, the RACOR SNOW BLOWER can be operated by remote control.

Foreign matter such as dirt, sand and top soil which might blow into the switch with snow, is blown out and not left as a residue, as is often the case when snow is melted through heating methods. The introduction of alcohol in atomized form through the anti-freeze injector, combined with the effect of blowing dry compressed air has proved very effective during sleet and freezing-rain conditions.

SAFETY

Safety is perhaps the most important advantage of all, as employees are not required to manually clear switches under traffic during snowstorms, usually the period of poorest visibility.

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DENEEFE IS NEW CHAIRMAN—LOS ANGELES IN '56, DALLAS IN '57

R. E. DeNeefe, vice-president and comptroller of the Gulf, Mobile & Ohio, is the Accounting Division's new chairman. At the Atlantic City meeting's election session, he was chosen to succeed C. D. Peet, chief accounting and finance officer, Missouri Pacific lines.

Mr. DeNeefe moved up from the second vice-chairmanship, the first vice-chairmanship having become vacant last November 30 when W. W. Cox resigned upon his retirement as vice-president and comptroller of the Delaware & Hudson. Mr. Cox was elected to honorary membership in the Accounting Division.

The new first vice-chairman is P. D. Jonas, comptroller of the Lackawanna, and the new second vice-chairman is P. J. Kendall, vice-president and general auditor of the Southern Pacific. R. E. Keefer continues as secretary.

As decided last year, the 1956 meeting will be held in Los Angeles, Cal., from May 28 through May 31. Dallas, Tex., was chosen for the 1957 meeting, which will be held June 3 to 6, inclusive.

(Continued from page 46)

customary chairman's address at the meeting's closing session.

H. J. Ward, comptroller of the Pennsylvania, was chairman of the Committee on Arrangements.

Judge Mitchell's address at the June 28 session was his last as commission chairman, his one-year term in that office having ended June 30, but he remains a member of the commission. He emphasized that his speech expressed "my individual views—not those of the commission." Among such views was the idea he has advanced before that essential railroad passenger services might well be subsidized under a plan which would avoid the disliked "subsidy" label by calling the government contribution "passenger support," just as the agricultural subsidy is called "price support" (*Railway Age*, March 21, page 8, and July 4, page 11).

Sharing the convention spotlight with Judge Mitchell was President W. Arthur Grotz of the Western Maryland. He emphasized management's duty of remembering "that we are working for owners of railroad shares," and went on to hail the Mitchell speech as an effective presentation of "the dawning realization by legislatures and regulatory bodies that over the years transportation has profoundly changed and that the change requires an equally profound change in regulation."

The report of President Eisenhower's Cabinet Committee on Transportation Policy and Organization, Mr. Grotz also said, "was a very constructive contribution in this regard." Because the commission's legislative committee will soon make a report on bills designed to implement the Cabinet Committee recommendations, Commissioner Mitchell refrained from expressing his own views.

He did, however, mention the cabinet group in noting that he was "not alone" with his idea of "bringing regulation up to date." Of the group and its work, the commissioner also had this to say: "The railroads did not make the report, neither did the air lines nor the truckers. The report was prepared by the special cabinet committee—high class, intelligent, able men."

The railroad industry's endorsement of the Cabinet Committee report was pointed up in an address by Walter J. Kelly, AAR vice-president in charge of its Traffic Department. Mr. Kelly also explained the report's recommendations (*Railway Age*, April 25, page 49).

Other speakers were: Walter W. Patchell, vice-president, PRR; C. J. Jump, vice-president, Railway Express Agency; A. R. Seder, vice-president in charge of its Finance, Accounting, Taxation and Valuation Department; J. L. Heywood, assistant comptroller, PRR; Noah Garner, auditor of freight accounts, Southern; W. H. Dehning, auditor of ticket accounts, Burlington; and E. A. White, auditor of expenditures, Burlington. Brief talks were also made by H. B. Siddall, vice-chairman of the Transcontinental and Western Passenger Associations, and by ICC staff members attending the meeting—Director C. W. Emken of the Bureau of Accounts, Cost Finding and Valuation, Director E. R. Jelsma of the Bureau of Transport Economics and Statistics, and A. V. Vallandingham, chief of the latter bureau's Section of Reports.

The Unregulated Are Flexible

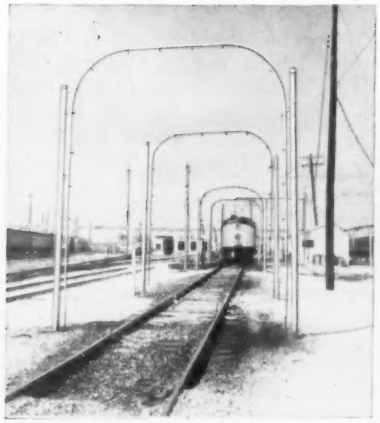
What Judge Mitchell advocates in the way of up-to-date regulation is summarized in statements from his speech set out in a "box" on page 46. His further discussion of the matter called attention to the "terrific difference between a regulated industry and one not regulated—a difference which I believe is not generally understood." The commissioner went on to point out how executives of unregulated industries can act promptly to abandon obsolete facilities or adjust prices to costs. He contrasted such freedom with what railroads must go through to obtain authority to abandon an unprofitable line, or to increase rates when costs rise.

"In a regulated industry even the smartest executives in the world are unable to make binding decisions without first securing the consent of the commission which regulates it," Judge Mitchell added. He went on to condemn "petty regulation," noting that he had in mind such things as the indictment of railroads for "technical" violations of the Elkins Act. Not since he has been a member, he also said, has the commission secured a conviction in Elkins Act cases where railroads defended themselves in court.

Meanwhile, the commissioner was not unmindful of the "new look" at the commission. "Frankly," he said, "I think the present commission has made great progress toward bringing about a more reasonable and fair interpretation of the regulatory laws."

Turning to the financial situation of the transportation industry, Judge Mitchell called attention to the relatively low returns being earned by railroads and other carriers. He went on to refer to the "severe box car shortage," and to the AAR announcement that the backlog of freight cars on order would be built up to 55,000. He then asked: "Where do these box cars come from in an industry that isn't making anything?"

The accounting officers applauded when Judge Mitchell said, as he had before, that the commission's waybill study should be discontinued. This study involves collection from the railroads of a one per cent sample of waybills issued. "It has," Judge Mitchell said, "cost the rail-



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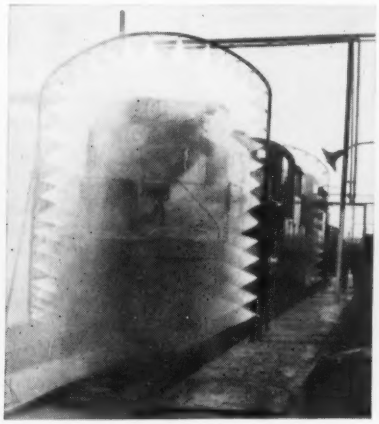

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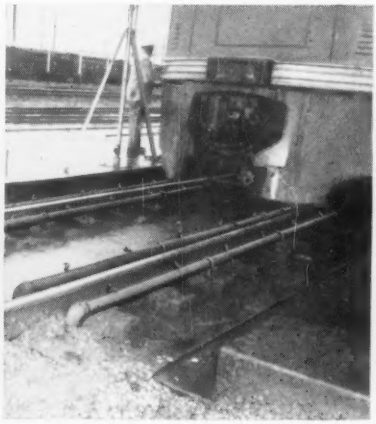

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roads thousands of dollars, the taxpayers also, and as far as I can ascertain it is of very little value to either shipper or the railroads."

The commissioner went on to tell of having received from a railroad president a letter opposing discontinuance of the waybill study. He replied by asking if his correspondent's road had ever used the study. The railroad president's reply was a general endorsement of the study as "a good thing," and Commissioner Mitchell's comeback was of the you-did-not-answer-my question variety. The railroad president then said his road had not used the study but was "considering" its use.

In his discussion of the "passenger support" proposal, Judge Mitchell said he does not think the 1954 deficit was as great as the $669 million indicated by the commission's formula for allocating passenger-service expenses. He thinks "the formula should be changed and perhaps a nearer figure would be $400 million." He then led into the subsidy proposal with an assertion that "some way must be found to eliminate that deficit."

President Grotz of the WM emphasized earnings because, as he put it, "a beautiful track, a fine shop, or a spectacular service which doesn't produce disbursable income is of no value to the owners." He called the accounting officers that arm of management best in a position to "inform the owners of the financial health of their companies and protect their funds."

Conceding that statistics are "vital," Mr. Grotz nevertheless expressed his fear that "executives get too many statistics that are not interpreted and, indeed, too many statistics to digest properly." On that score he urged the accounting officers to "give thought to interpreting statistics for quick understanding by management and to sharply reduce the number of statistics which flood across executives' desks."

"Good Things" in Railroad Situation

Appraising the railroads' current position, Mr. Grotz found in the Dow Jones stock price average, evidence that there are "good things" about the picture. At the same time he recognized that the relatively large percentage rise in the railroad index was due largely to the "low estate" to which railroad stocks had fallen. Nevertheless, the WM president added, "it is obvious that lately more people have been interested in buying rails than in selling them," and "we have a start, at least, on the road back to the fine position which railroad investments formerly held."

Other factors on the "good side" were listed by Mr. Grotz as "the spirit of enterprise which has been shown by railroad management in adopting new ideas and advanced technology," and "the interest being shown by leaders of railroad labor in actively cooperating with management in the broad areas of mutual interest." Then came the WM president's favorable comment on the Mitchell address. The growing acceptance of the regulatory philosophy expressed by the commissioner is also "a basic consideration that is good," Mr. Grotz said.

The WM president recognized that there is also some "bad" in the railroad picture. This, he suggested, "should inspire more incisive thinking and greater drive on the part of everyone interested in the industry's welfare.

"The total transportation required in the United States," Mr. Grotz continued, "has expanded faster than the economy. It may again double. The transportation opportunity is tremendous for those keen enough to foresee the shape of needed service and to provide in time the appropriate vehicles and performance. It is in original thinking instead of historical thinking that railroad officers . . . can be stimulating and productive in the future. By original thinking, I mean not only research into new methods . . . but also the 'why' of changes in reported figures and the projection of the effect indicated by any important change upon future results."

Pilot Study of Machine Accounting

As to prospective economies from electronic processing of data and other machine accounting, Mr. Grotz told of the eastern railroad group which plans to install "pilot operations" to test recommendations based on such prospective economies. Mr. Grotz is chairman of the group.

"The initial phase of this study," he said, "will cover data exchanged between roads in car accounting and freight revenues. The group has thus far been kept small for expeditions, but naturally the results of their work will be available to all. . . .

"While this group may not come up with new ideas, we certainly expect to get into operation definite economies. We expect to broaden the scope of application of electronic computers. The field is so technical, so distinctly yours and the car accountants', that about the only contribution the presidents can make is to get things going. But, make no mistake about it, we demand just that. We have little patience with arguments why codes, for instance, cannot be promptly standardized."

This report by Mr. Grotz was of special interest in view of the exhibit of the latest in accounting machines and equipment which was a feature of the convention. Twenty-three companies participated.

Vice-President Patchell of the PRR discussed the passenger situation, summing up his road's "approach and philosophy" in these four points:

1. Even though it is not now paying (and we know of no quick and sure panacea to make it pay) we need and want more passenger business. We have about a billion dollars invested in passenger service; it accounts for over 20% of our revenues; but, of more importance, we cannot even consider the possibility of 'going out of the passenger business' because we would lose more than we would save. . . .

2. Our costs justify substantially higher fares. . . . However, the inequitable competitive situation does not permit our raising fares. . . .

3. Deficiency in volume is obviously one of our difficulties, but again—*with present costs*—we cannot hope to arbitrarily reduce fares to create a volume that would solve our problem. With our costs as they are, increased volume obtained in that way would represent "artificial prosperity" for it would cost us more than we gained.

4. As we see it, our best solution is in this approach: We must reduce costs, while offering better and therefore more salable service. We must also increase sales still further by certain specific patterns of selective fare reductions as the effects of reduced costs and better service begin to produce results.

"It is in line with this approach," Mr. Patchell continued, "that we are pioneering with new passenger

(Continued on page 54)

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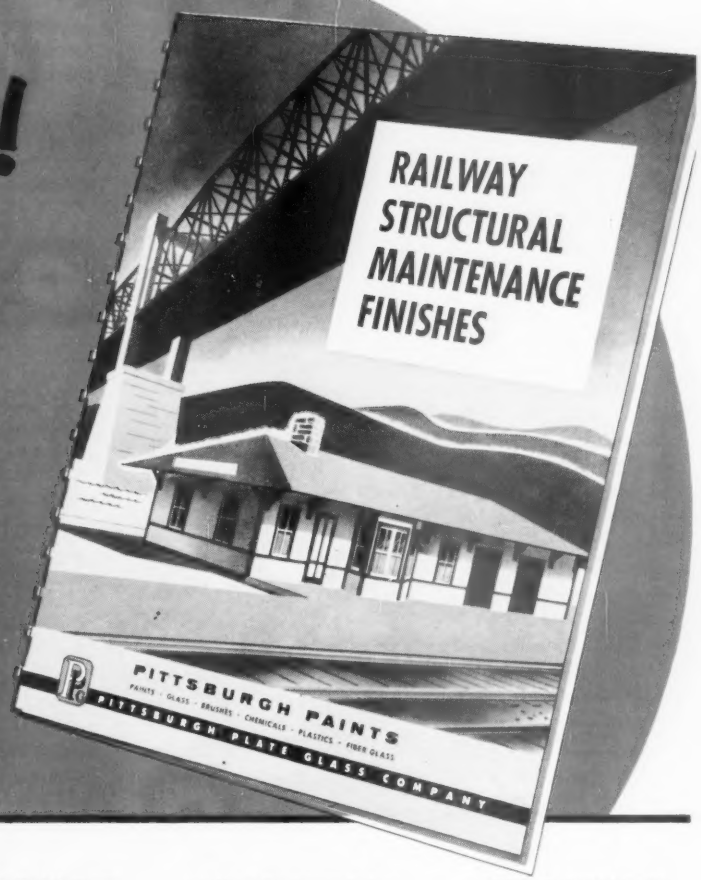
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UPDATING REGULATION URGED

(Continued from page 52)

trains. Aside from attractiveness to the traveling public, it is our hope that the new trains, as they develop and multiply, will substantially reduce capital investment and maintenance and transportation costs of passenger services. This in turn might make it feasible to reduce rates in certain hours of the day, on certain days of the week, in certain seasons of the year, as well as in certain areas —all in an effort to attract more passengers and get more utilization and more revenue per year from our equipment.

"Obviously, our experiments with new types of passenger equipment represent a comparatively long-range attack on our passenger deficit problem. Meanwhile, we are working, day in and day out, to whittle the deficit to manageable proportions."

Vice-President Jump of REA explained the organization and operations of that railroad affiliate, thus making what he called a report of a "committee on express accounts." Vice-President Seder of the AAR reminded the accounting officers of their "duty and responsibility" to provide leadership and training for their staffs. "It is not enough," Mr. Seder said, "to install the latest machines and the most improved procedures; we must be sure that our people are equally prepared to use them."

Director Emken of the ICC's Bureau of Accounts, Cost Finding and Valuation complained that insufficient progress was being made on the work of keeping the accounting classification up to date. The system has reached the point where it needs overhauling, he said, appealing for cooperation. He appealed specifically for more rapid progress on the revision of the balance sheet, saying that his bureau was getting ready to launch a like project on the income statement. Net railway operating income has become "so diluted and misstated" by income-tax adjustments that it "means nothing," Mr. Emken asserted.

Mr. Dehning of the Burlington explained the combined government transportation request form which became effective July 1. The form was developed after railroad passenger traffic officers had advised that more and more military traffic was being routed by commercial air lines "because it was easier for the government transportation officer to issue one transportation request."

The new form, as Mr. Dehning explained, may be issued by government transportation officers for rail tickets only, Pullman accommodations only, or for both rail tickets and Pullman accommodations. Formerly, separate requests forms were used for rail and Pullman service. The new form is a specially designed punch card, adaptable for either machine accounting or manual operations. The government disbursing officer issues one check for the total, and the railroad makes the settlement with the Pullman Company.

WHENCE FUTURE MANAGEMENT?

(Continued from page 40)

given a reasonable opportunity for advancement, I believe that you could attract more college graduates right now if you made an effort to do so.

The ideal way to attract college graduates and make the most of their potentialities would be to establish a training program in the Operating Department. I would think of such a program as one which might be helpful in training personnel for other departments as well. It possibly would not have to be as elaborate as the trainee programs sponsored by some concerns, and I think that it might be designed to include a limited number of ambitious and competent young men now on the railroad who are not college graduates.

I would like to add just a few words about the in-service training program. I am inclined to question the value of class work conducted on company time. Any ambitious young man who is worth his salt will seek to improve himself whether it is on company time or on his own time. Where you conduct classes on company time, it seems to me that you are likely to attract, in addition to the promising young men, a lot of "free riders" who find it easier to get paid for sitting in a chair than for working at a job. With the exception of individuals who may be employed specifically as trainees, men who have to be paid to go to school are not likely to make good scholars and can easily spoil a class.

I think your present policy of encouraging promising employees to continue their education by going to night school and progressing toward a college degree is thoroughly sound. While this is not the best way to get a college education, it may be the only possible way for many. And I have only the highest respect for those who hammer away night after night until they obtain a degree. There is, of course, always a strong temptation for people to take only those courses which apply directly and immediately to the work they are doing, or to take "practical" courses without taking the more fundamental background or theory courses. This sort of thing tends to defeat the whole purpose of a college education, and I think every effort should be made to encourage your more competent people to become degree candidates rather than "special" students.

Financial

Delaware & Hudson.—*To Buy Erie Line.*—The D&H has applied to the ICC for authority to purchase from the Erie a 34.5-mile line over which it now operates under trackage rights from Jefferson Junction, Pa., to Carbondale. The purchase price would be $3,500,000, of which $1,000,000 would be paid in cash and the balance under a promissory note with installments of $500,000 each beginning January 1, 1956. The Erie would operate over the line as necessary under trackage rights if the application is granted.

Missouri-Kansas-Texas. — *Stock Purchased.*—A group headed by the State Street Investment Corporation, the Pennroad Corporation and Bear, Stearns & Co., has acquired over 500,000 shares of Katy common stock from the estate and associates of the late Edward N. Claughton. It is expected the new shareholders will be given representation on the road's board of directors.

Missouri Pacific.—*Reorganization Balloting.*—The ICC has reported that 12 of 16 eligible classes of shareholders approved the "agreed

(Continued on page 58)

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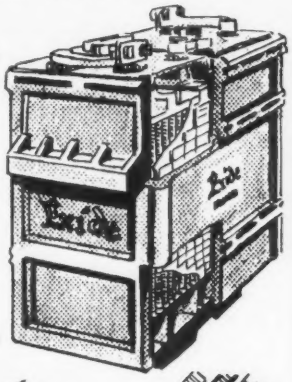

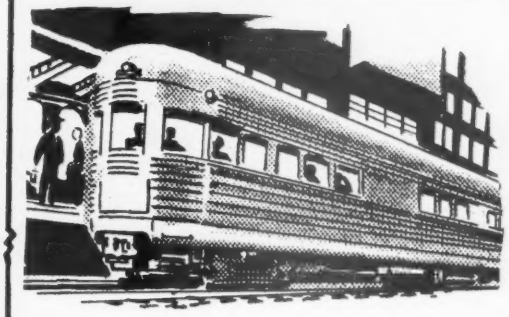

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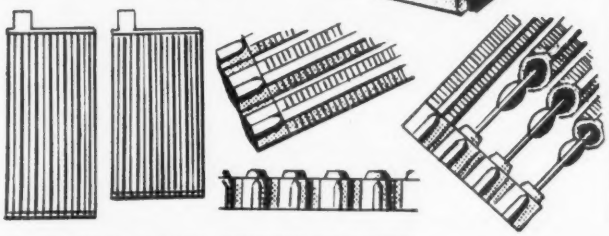

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LOW CONDUCTIVITY . . . Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity —.25 btu per square foot, per hour, per degree F., per inch thick.

LIGHT WEIGHT . . . Advanced processing methods reduce weight of STREAMLITE HAIRINSUL by 40%.

PERMANENT . . . Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.

EASY TO INSTALL . . . Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.

COMPLETE RANGE . . . STREAMLITE HAIRINSUL is available ½" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other weights and facings available.

HIGH SALVAGE VALUE . . . The all-hair content does not deteriorate with age; therefore has high salvage value. No other type of insulation offers a comparable saving.

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That bright new refrigerator car coming out of the shop will someday wear out, be sold for scrap or be junked, but the STREAMLITE HAIRINSUL originally used in the car can be salvaged to be used again. It actually outlasts the life of the car!

STREAMLITE HAIRINSUL's high insulating efficiency remains the same year in and year out. Records show where all-hair insulation removed from refrigerator cars after 20 years or more of service, is in like new condition. All-hair insulation does not deteriorate with age. Its salvage value is high.

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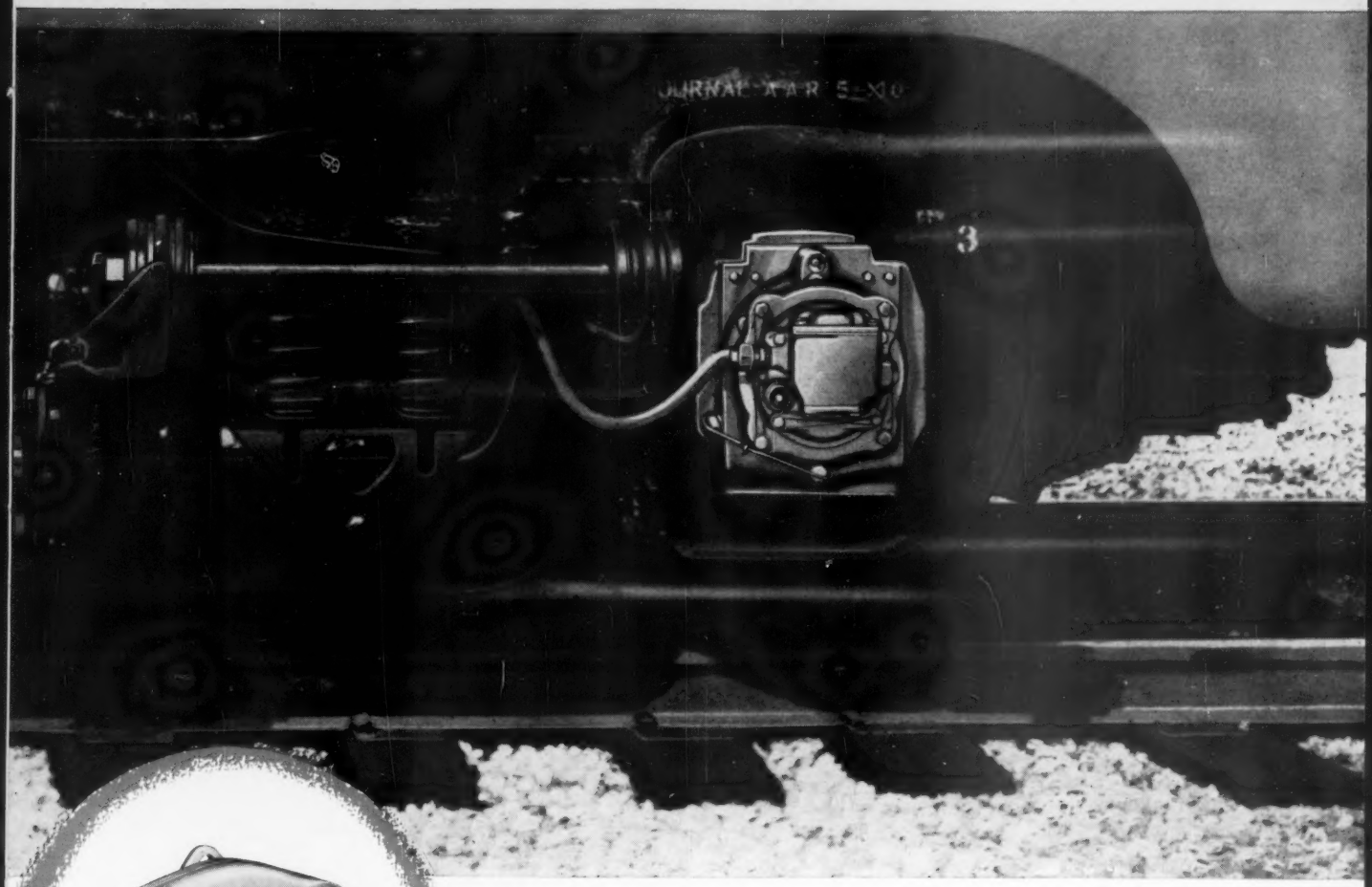

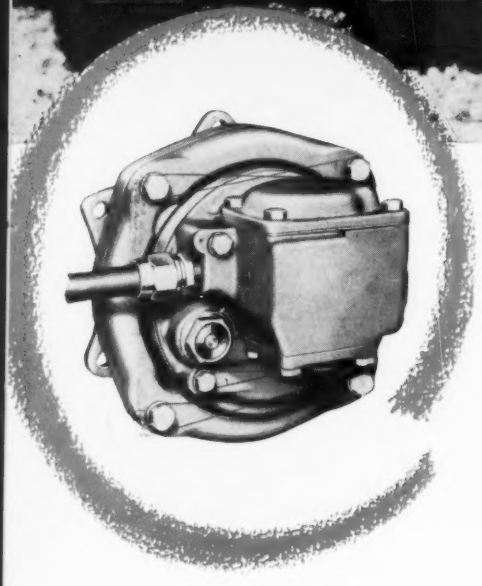

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The Westinghouse AP Decelostat® Controller relieves braking pressure the instant wheel slip *starts*—the slip is arrested *before it can develop into a slide* . . . and you save the delays and the cost which would otherwise result.

Westinghouse Air Brake
COMPANY
AIR BRAKE DIVISION WILMERDING, PENNA.

Financial

(Continued from page 54)

plan" for reorganization of this road by votes of 92% or better. Two of the shareholder classes approved the plan by percentages of 59 and 64 and no acceptable ballots were received from holders of two other classes of stock. An ICC spokesman said the the plan (*Railway Age*, November 15, 1954, page 16) must now be submitted to the U.S. District Court at St. Louis for final confirmation. The spokesman said two-thirds approval of each class is normally required for confirmation of a reorganization plan but said that the court has the power to confirm the instant plan following a hearing. Under terms of the plan, control of the reorganized company will go to holders of old-company preferred stock who will receive one share of Class A common for each $100 par value of present holdings plus one share of the new Class A for each $100 of accumulated dividends. Old-company common stockholders are to get one share of class B common for each 20 shares of the old.

Seaboard.—*Miami Union Station.*—This road has asked the ICC to dismiss the petition of the City of Miami for a ruling that would require the Seaboard and Florida East Coast to participate in setting up a union terminal in Miami (*Railway Age*, June 13, page 71). The Seaboard said it is willing to cooperate in civic projects but denied that its Miami facilities are outmoded or obstruct the flow of traffic as the city's petition alleged. Further, it attacked that part of the city's plan to have the FEC operate under trackage rights over a portion of the Seaboard track. The ICC has no jurisdiction over such a proposal, the road declared, because neither it nor the FEC had requested the rights.

Application

CHESAPEAKE & OHIO.—To assume liability for $3 600,000 of equipment trust certificates, the first of two issues totaling $8,400,000 to finance in part the purchase of the following equipment at a total estimated cost of $10,537,877:

	Description and Builder	Estimated Unit Cost
250	50-ton box cars (Pullman-Standard Car Manufacturing Company)	$11,224
688	50-ton box cars (ACF Industries, Inc.)	11,238

The securities, to be dated August 1, would mature in 15 annual installments of $240 000 each for this issue, $320,000 each for those still to be applied for, beginning August 1, 1956. They would be sold by competitive bidding with interest rates to be determined by such bids.

Dividends Declared

ATCHISON, TOPEKA & SANTA FE.—$1.25, quarterly, payable September 1 to holders of record July 29.

BELT RR STOCKYARDS.—common, 50¢, quarterly; 6% preferred, 75¢, quarterly; both payable July 2 to holders of record June 21.

CHICAGO GREAT WESTERN.—stock dividend, 2½%, payable July 27 to holders of record July 11.

MICHIGAN CENTRAL.—$25, semiannual, payable July 29 to holders of record July 8.

NORFOLK & WESTERN.—common, 75¢, quarterly, payable September 9 to holders of record August 11; 4% adj. preferred, 25¢, quarterly, payable August 10 to holders of record July 21.

PITTSBURGH, CINCINNATI, CHICAGO & ST. LOUIS.—$2.50, semiannual, payable July 20 to holders of record July 8.

READING.—50¢, quarterly, payable August 11 to holders of record July 14.

WESTERN PACIFIC.—75¢, quarterly, payable August 15 to holders of record August 1.

Security Price Averages

	July 5	Prev. Week	Last Year
Average price of 20 representative railway stocks	98.40	98.86	67.69
Average price of 20 representative railway bonds	98.32	99.25	95.04

Supply Trade

Teleweld, Inc. has appointed **Wm. H. Ziegler Company,** Minneapolis, and **Lloyd's Railway Supplies,** Denver, as its sales representatives in those areas.

General Cable Company has announced an expansion program which includes acquisition of **General Insulated Wire Works, Inc.,** Providence, R.I., manufacturers of telephone wires and power supply cords and cord sets. General Cable also will construct a new 50,000-sq-ft plant in Monticello, Ill., which is expected to be in full operation by the end of this year. In Canada, a new company, **Telecables & Wires, Ltd.,** has been formed to produce telephone wires and cables. It will be owned jointly by General Cable, Canada Wire & Cable Co., and the British Telegraph Construction & Maintenance Co.

International Trailer Company has appointed the following as representatives in the railroad field for its mobile camp units and field office trailers: **Ralph W. Payne Company,** 613 Fifteenth st., N.W., Washington, D.C.; **Eastern Railway Supplies, Inc.,** 110 East 42nd st., New York; **Stanley H. Smith & Co.,** Public Square building, Cleveland; **Clarence Gush,** Railway Exchange building, St. Louis.

Henry A. Talbert, sales engineer of **Union Switch & Signal Division** of **Westinghouse Air Brake Company,** has been appointed assistant district manager, at New York.

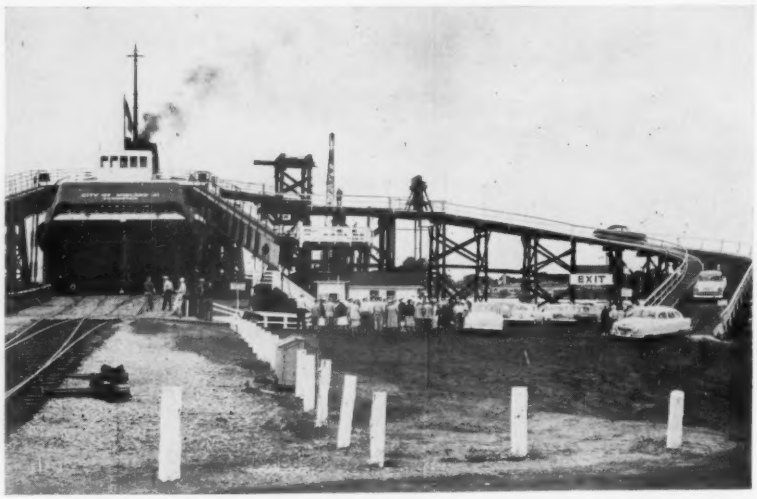
Pennsylvania Salt Manufacturing Company has moved its executive and operating division offices from the Widener building to Three Penn Center plaza, Philadelphia.

Raymond E. Valentine, sales manager, Railway division, **National Malleable & Steel Castings Co.,** at St. Louis, has been named assistant vice-president, sales, of the same division, at Cleveland.

Harry A. Ronan, zone manager for **Motorola Communications & Electronics, Inc.,** has been appointed New England regional manager, at Winchester, Mass.

The following appointments have

(Continued on page 62)



"DRIVE-IN SHIP"—The "City of Midland" (above), one of the Chesapeake & Ohio's seven train-ferries, can now carry more automobiles than ever before through use of a new loading ramp which permits access to upper deck. In the first eight days of operation, the vessel carried 1,290 automobiles. The ramps, costing over $100,000, were conceived and designed under direction of M. I. Dunn, C&O vice-president.

THE VIRGINIAN

Replaces freight steam power with Fairbanks-Morse Power

Train Master performance on demonstration was the start of the Virginian's program to replace steam power with diesel-electrics. With a large initial order—and large re-order—all in the short space of 13 months, they have put under dieselization all freight service formerly handled by steam power—all with Fairbanks-Morse Motive Power.

Here on the Virginian, the Opposed Piston Diesel engine and Fairbanks-Morse locomotive design have again proved . . .

Your Best Motive Power Investment is in Fairbanks-Morse Locomotives

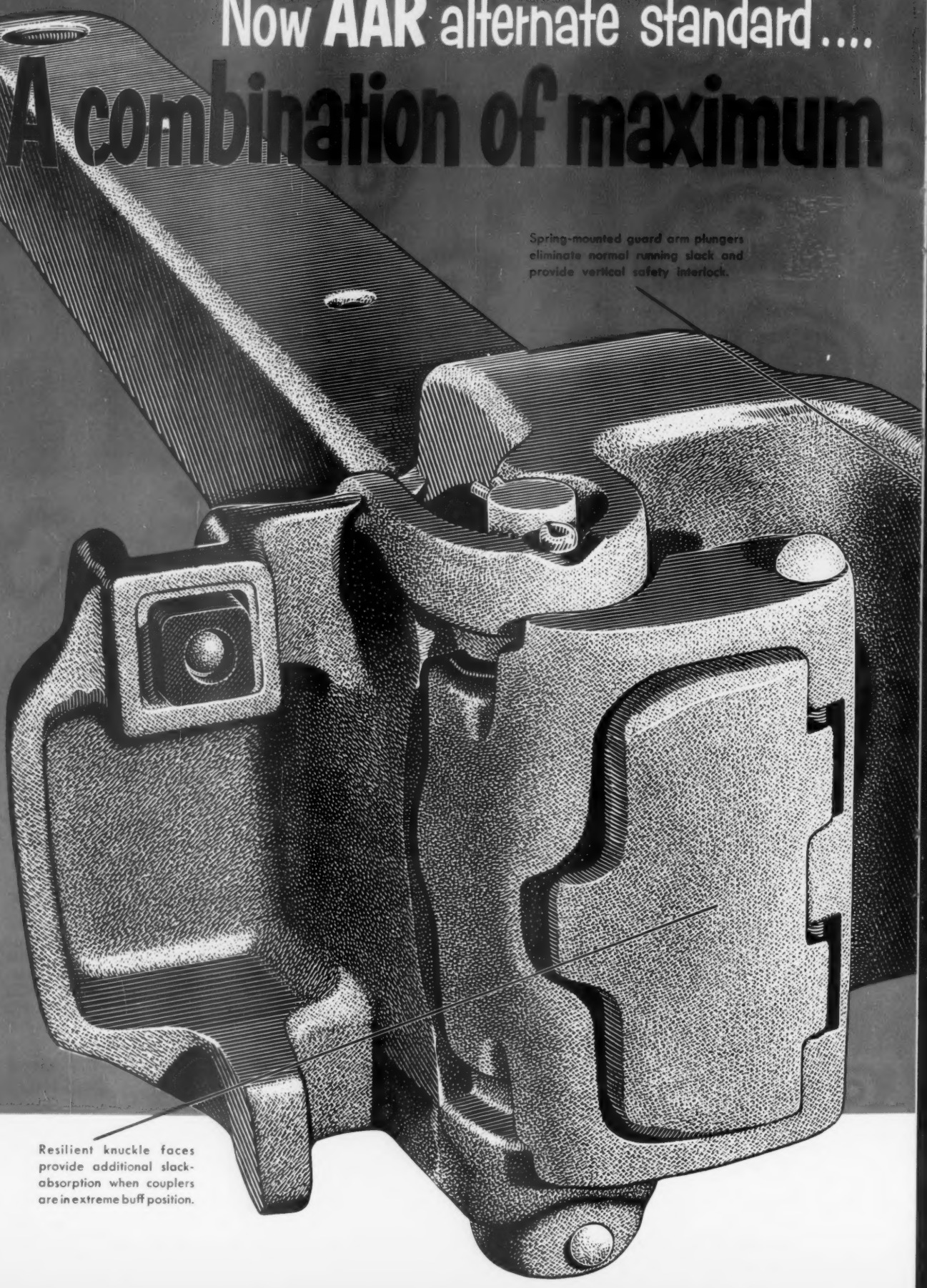
Fairbanks, Morse & Co.
600 S. Michigan Ave.
Chicago 5, Ill.

FAIRBANKS-MORSE
a name worth remembering when you want the best

DIESEL LOCOMOTIVES AND ENGINES • RAIL CARS AND RAILROAD EQUIPMENT • ELECTRICAL MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • MAGNETOS

Now AAR alternate standard....

A combination of maximum



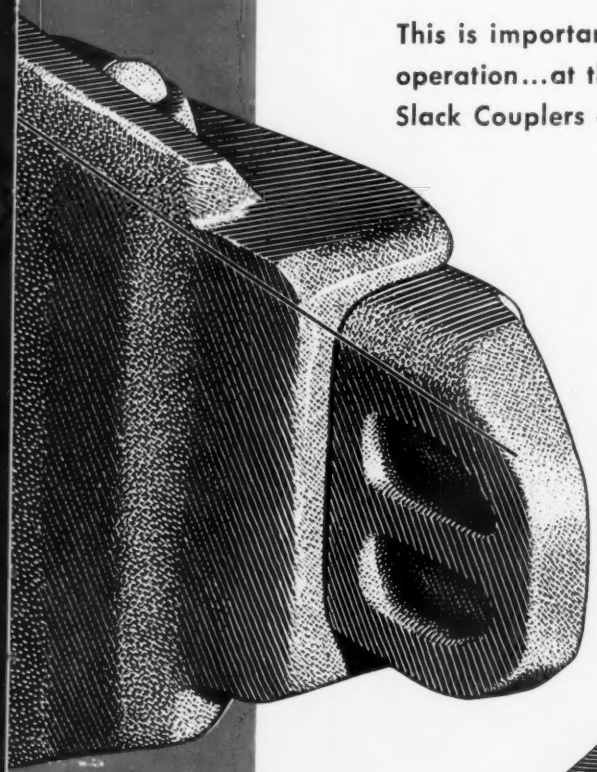
Spring-mounted guard arm plungers eliminate normal running slack and provide vertical safety interlock.

Resilient knuckle faces provide additional slack-absorption when couplers are in extreme buff position.

safety at minimum cost... the Controlled Slack Coupler

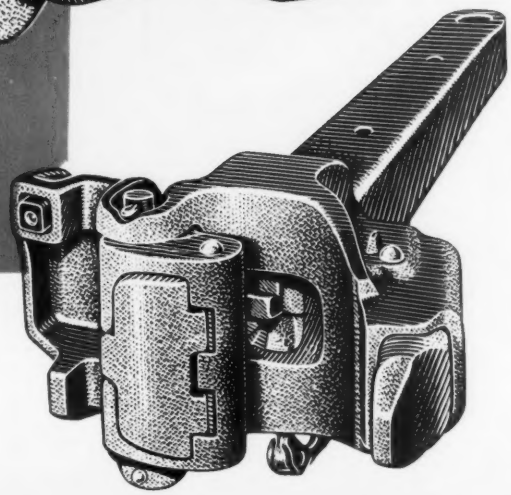
Fully meets all AAR test specifications

This is important news for the railroad interested in safe, smooth coupler operation...at the lowest possible costs for new passenger cars. Controlled-Slack Couplers are also an ideal application for modernizing existing cars.



Over *2 billion* car and locomotive miles of high-speed passenger train service have provided an excellent record of safety, comfort and smooth train operation.

Controlled-Slack Couplers and Slack Free Yokes can be applied to all passenger cars with standard sill spacing, without need for center sill alterations. *Here's a coupler that offers you a safe, practical way to save money.*



ASF

type E controlled-slack coupler

A contribution to railroad operating economy—through the Research and Development of

AMERICAN STEEL FOUNDRIES

410 North Michigan Avenue, Chicago 11, Ill.

Canadian Sales: International Equipment Co., Ltd., Montreal 1, Quebec

Supply Trade

(Continued from page 58)

been announced by the **Electro-Motive Division** of **General Motors Corporation: E. W. Kettering,** chief engineer, has been named to the new position of director of research. **B. B. Brownell,** assistant chief engineer, has been advanced to chief engineer.

OBITUARY

Hiram G. Barbee, who retired recently as an assistant vice-president of the Chicago Pneumatic Tool Company, died June 16.

Organizations

Pan American Papers Due by October 15

All papers to be submitted in connection with the Ninth Pan American Railway Congress must reach the United States National Commission of the Pan American Railway Congress Association on or before next October 15. They should be sent to Herbert Ashton, executive secretary, c/o Department of Commerce, Room 7866, Washington 25, D.C.

The Congress itself will meet in Buenos Aires next April.

As reported in *Railway Age* April 11, page 64, prizes will be awarded for the best papers on a variety of subjects related to railroad administration and operation.

Armed Forces to Sponsor "Resources Conferences"

Transportation and communications, manpower, internal security, distribution logistics, emergency management and civil defense are included in a diversified list of subjects to be studied at 16 "National Resources Conferences" to be sponsored by the Industrial College of the Armed Forces in 1955-56.

Each conference will last two weeks, with daily hours so arranged that employees of civilian businesses will have time available to handle their regular work. Locations and starting dates of the conferences are: Houston, Tex., September 19; Detroit, September 26; Santa Barbara, Cal., October 17; Portland, Ore., October 24; Miami, Fla., and Ogden, Utah, November 28; Mobile, Ala., January 16, 1956; Berkeley, Cal., January 23; Jackson, Miss., and Shreveport, La., February 13; Waco, Tex., and Savannah, Ga., March 12; Des Moines, Iowa, April 9; Chicago, April 16; Buffalo, N.Y., May 21; and Richmond, Va., May 14.

Civilians desiring to attend a conference should apply to the civilian sponsoring agency of the city in which they wish to attend. At Miami, this agency is the Dade County Board of County Commissioners; elsewhere, it is the local chamber of commerce.

The **Material Handling Institute's** Exposition of 1956 will be held June 5-8, in Cleveland's Public Auditorium and Exhibit Halls. Exhibits will include demonstrations and displays of the latest material handling products from the smallest to the largest, with many "firsts" numbered among them.

The **Traffic & Transportation Association of Pittsburgh** has elected the following officers for 1955-56: President, C. F. Coombs, assistant manager, traffic and transportation division, Jones & Laughlin Steel Corp.; vice-president, William J. Schwartz, Bessemer & Lake Erie; recording secretary, Bernard Pugar, New York, New Haven & Hartford; financial secretary, William G. Harrison, United Engineering & Foundry Co.; membership secretary, James C. Carey, Standard Motor Freight Company; treasurer, Charles W. Allison, Irving Jones Shipping Agency.

An all-day program to discuss the role of transportation in marketing farm products and distributing farm supplies has been scheduled by the **American Institute of Cooperation,** at Purdue University, Lafayette, Ind., August 10. The morning session, moderated by George E. Vawter, traffic manager, Sun-Maid Raisin Growers, will cover "The Transportation Needs of Modern Agriculture." In the afternoon, representatives of the four main types of transportation will tell what transportation agencies are doing to meet these needs. Dr. George H. Baker, president, Transportation Association of America, and lecturer at Harvard Graduate School of Business Administration, will guide this part of the program. P. H. Draver, vice-president of the Milwaukee, will speak for the railroads.

Railway Progress Institute will hold its first general membership meeting November 18, in Chicago, to be followed by a banquet that evening. Details of seating allotment, program, etc., have not been determined.

Walter A. Rohde, manager of the transportation department of the **San Francisco Chamber of Commerce** since February 1938, retired July 1. Before joining the chamber in 1932 as assistant transportation manager, Mr. Rohde had been in the traffic department of the California Packing Corporation in San Francisco. His successor has not yet been announced.

The 111th meeting of the **Mid-West Shippers Advisory Board** will be held at Milwaukee July 14, at 8:45 a.m. P. G. Jefferson, general chairman of the board and general traffic manager,

"TRACKED" AND SIGNALLED HIGHWAYS SUGGESTED TO PROMOTE SAFETY

Highways divided into "tracks," with each track signaled much as a railroad track is signaled, have been suggested by a Mamaroneck, N.Y., mechanical engineer, H. G. Steinmetz, as a means of reducing the motor vehicle accident toll.

Proceeding from the assumption that "vehicle operators will never be eliminated from public highways because of lack of sufficient driving skill," Mr. Steinmetz proposes that highways themselves be so designed as to reduce to a minimum the skill and judgment required by drivers. To accomplish this, he suggests that highway designers consider their roadways as "a track or series of tracks," with vehicles restricted to a given track by physical barriers designed to isolate the lanes completely from each other. He would provide, however, for a vehicle to move, at predetermined points, and under signal protection, from one lane to another; and for vehicles to enter or leave any lane, also at predetermined points, under directions from automatic signals.

The signaling system, which Mr. Steinmetz has worked out in considerable detail, would be of two types. One would simply control the spacing of vehicles within a single lane; the other would provide for entrance to and exit from individual lanes, for crossing one or more lanes, or for moving between parallel lanes, as local circumstances required. In either case, the principal would be identical, and the operation similar, to that of signals already in common railroad use.

"Practical considerations," Mr. Steinmetz says, would dictate "the exact amount of restrictions by means of barriers that is desirable," and "how much interlocking signaling to use in each particular case." In an extreme situation, he points out, "drivers would merely have to guide their vehicles down a lane, or 'track,' and watch straight ahead for signals to tell them exactly what to do."

In short, each vehicle would follow a predictable path, with barriers to prevent it from departing from that path, while retaining freedom to exercise the flexibility of operation which is an inherent characteristic of the motor vehicle. Through signal controls, the driver's decisions—and his need for operating skill—would be cut to a minimum.

Fairbanks, Morse & Co., will preside at the morning session, in the Schroeder Hotel. At the conclusion of the meeting, a special Milwaukee train will take members and guests to the plant of the Union Refrigerator Transit Lines for an outdoor barbecue sponsored by URT. Committee meetings will be held at the Schroeder Hotel July 13, beginning at 10 a.m.

Equipment & Supplies

Thailand Asks Bids On 838 Freight Cars

The State Railways of Thailand have requested bids for supply of 838 one-meter-gage freight cars, according to Foreign Commerce Weekly. Specifications and drawings of the cars—which include gondola cars, box cars, flat cars and stock cars—may be borrowed from the Commercial Intelligence Division, Bureau of Foreign Commerce, U. S. Department of Commerce, Washington 25, D.C.

FREIGHT CARS

The **Southern Pacific** has ordered 950 50-ft, double-door box cars at a cost of $8,250,000. The Pullman-Standard Car Manufacturing Company will build 200 of the cars and the remainder will be built in the SP's Sacramento, Cal., shops.

PASSENGER CARS

The **Canadian National** has ordered 30 50-ton steel-sheathed overheadiced express refrigerator cars from Marine Industries, Ltd. Delivery is scheduled to be completed in September.

LOCOMOTIVES

The **State Railways of Thailand** have ordered 15 1,000-hp diesel-electric locomotive units from the Davenport-Besler Corporation.

Briefly . . .

. . . A troop of Chicago Boy Scouts are the proud possessors of a brass locomotive bell presented to them by Paul E. Feucht, president of the Chicago & North Western. On a camping trip a few weeks ago, the boys found a large tree across C&NW tracks near Baraboo, Wisc. Not knowing which way a train might be coming, they split into groups which followed the track in both directions, while others headed for a telephone to call the railroad. Before the company could be notified by phone, one of the track side groups successfully flagged the "Dakota 400" with their neckerchiefs. "The action of these scouts is a dramatic indication of the service to others for which the Boy Scout organization is famous," Mr. Feucht said, in presenting the bell.

SWISSAIR PLANS EUROPEAN RAIL TOUR

Swissair, the airline of Switzerland, has announced a European "Rail Adventure Tour," designed to appeal to railroad employees, executives, engineers, model builders and fans. The tour, scheduled to leave New York September 3, will include two weeks in Switzerland and Italy, with optional extensions to Germany, France and England.

Beginning with a trans-Atlantic flight from New York to Zurich via Swissair, the first part of the tour will be centered on Lucerne, where there will be an opportunity to visit two open-air model railroad exhibits and to ride on the steepest cogwheel railway in the world, which ascends 6,000 ft up Mount Pilatus. Other sightseeing trips will include a trip on the first cogwheel railroad in Europe, built in 1871, to the summit of Rigi Mountain.

From Lucerne, the party will travel by the Swiss Federal Railways' "Red Arrow" over the trans-Alpine Gotthard route to Lugano, with inspection stops to view features of special technical interest. From Lugano the tour will go to Milan, Italy, where members will see the ERT.300, latest streamliner of the Italian State Railroads.

From Milan, the tour will return through the 12½-mile Simplon tunnel—longest in the world—to Brig, Switzerland, with subsequent trips via the Loetschberg railroad to Interlaken, and to the Jungfraujoch summit on Europe's highest mountain railroad; a reception by Swiss railroad officials, and a concluding visit to the Swiss Transportation and Railway Museum and model railroad exhibit at Zurich.

Price of the tour, including trans-Atlantic air fare, hotel accommodations, etc., will be $960.

The five-day extension to Germany will cost $124.50, and the six-day tour of France and England $112.50. The latter will include inspection tours of major railway stations in both Paris and London.

Complete information about the tour is available from Swissair offices in New York, Philadelphia, Cleveland, Chicago, Los Angeles and San Francisco.

Railway Officers

ATLANTIC COAST LINE.—William H. Swiggart, vice-president and general counsel of the **Nashville, Chattanooga & St. Louis** at Nash-

William H. Swiggart

ville, Tenn., has been elected vice-president and general counsel of the ACL and the **Charleston & Western Carolina** at Wilmington, N.C.

BALTIMORE & OHIO.—R. A. Garrigus, general car foreman at Washington, Ind., has been appointed regional master car builder at Cincinnati, succeeding **A. J. Larrick,** retired.

CANADIAN NATIONAL.—Frank J. Farish, assistant division engineer at Vancouver, has been appointed district engineer, Manitoba district, at Winnipeg, succeeding **Edgar S. English,** whose transfer to Montreal was noted in *Railway Age* June 13, page 72.

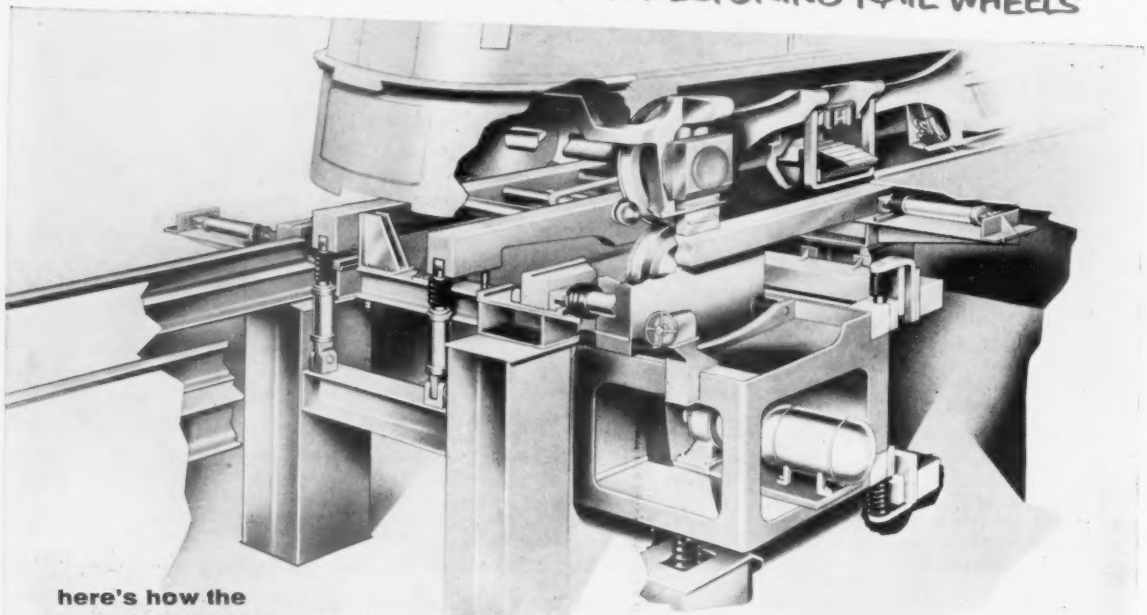
CENTRAL OF GEORGIA.—John R. Mock, Jr., car foreman at Colum-

(Continued on page 66)

BOSTON & MAINE.—Dana D. Phillips, assistant to purchasing agent, has been appointed purchasing agent at Boston, Mass.

IT'S NEW!

A QUICK SERVICE DRIVE-IN FOR RESTORING RAIL WHEELS



here's how the

NEW WHITING WHEEL GRINDER

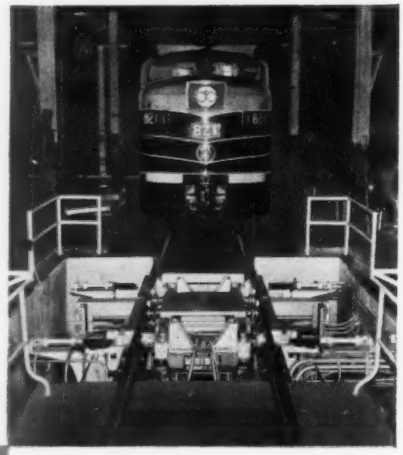
turns shop-time into road-time!

The most modern locomotives and cars aren't earning you a dime—unless they're out on the road, *working*.

The compact new Whiting Wheel Grinder reduces down-time from days to hours . . . accurately restores wheels to standard AAR contour *without removal!* Without touching a single nut or bolt, your much-needed equipment can be restored to peak operating efficiency in an amazingly short time.

Maintaining proper wheel contour is important to higher speed trains, heavy tonnage and keeping road beds and rails in good condition. The new Whiting Wheel Grinder makes maintenance of wheel contour an easy, routine job and helps reduce other maintenance problems as well.

This new development helps cut costs in *many* ways. It's located in a pit inside the shop, takes less room than other methods. It doesn't require skilled operators, only two men with little experience can grind upwards of eight pairs of wheels per day. It also eliminates the need for large stocks of trucks, wheels and other repair parts ordinarily damaged in removal and reassembly. Look into the Whiting Wheel Grinder now!



Proof of performance! . . . here's the new Whiting Wheel Grinder at work in the Baltimore and Ohio Railroad's Cumberland Diesel Shop. Other leading railroads have placed orders for this new Whiting development.

Complete details of the Whiting Wheel Grinder are yours for the asking in Bulletin MS-C-401.

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Simtex Mills maintains the most rigorous Quality Control program ever set up in the tablecloth industry. At every step of production, Simtex uses special safeguards to assure uniformly high quality. After weave-room inspection, for example, Simtex damask on the roll is sent to the burling room, where experts re-examine it inch by inch under powerful lights. Finished and hemmed tablecloths and napkins are again subjected to exacting scrutiny before testing for breaking strength. To you, Simtex Quality Control assures these advantages:

> Lustre that lasts—texture that *stays* luxurious—a hand that remains fine and crisp through *countless launderings* and endless *use*. Cloth for cloth, Simtex outlives all other napery. Simtex *predictable wear-life* lets you budget your replacements in advance: Simtex quality pays off in economy.

It's smart housekeeping to specify Simtex napery—with your own distinctive crest, if you wish. *You can always count on Simtex quality.*

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PITTSBURGH 30 NEW YORK 7
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Railway Officers

(Continued from page 63)

bus, Ga., has been appointed chief car inspector at Savannah, succeeding **A. H. Heath, Sr.,** deceased.

CHESAPEAKE & OHIO.—**T. P. Hackney** has been appointed shop engineer at Richmond, Va., succeeding **J. B. Roman,** transferred. **H. M. Vise, Jr.,** general foreman car department at Huntington, W.Va., has been appointed assistant to general superintendent car department at Richmond.

P. R. Humphreys has been named assistant shop superintendent at Huntington.

J. N. Wills, trainmaster at Rainelle, W.Va., has been transferred to the New River subdivision at Hinton, W.Va., succeeding **G. S. Lively,** who has been appointed assistant to superintendent at Hinton.

D. C. Teal, superintendent water supply of the Southern region at Richmond, has had his jurisdiction extended over the entire system.

R. R. Stant and **H. H. Sass,** auditors of freight accounts at Richmond and Detroit, respectively, have been appointed assistant general auditors—traffic accounting, with headquarters at Richmond and Cleveland, respectively.

T. W. Lawson and **J. A. Virtue** have been named auditors of freight accounts at Richmond and Detroit, respectively. Mr. Lawson was formerly assistant auditor of freight accounts at Richmond and Mr. Virtue was assistant to auditor of revenues at Detroit.

F. E. Gleach, deputy tax commissioner, has been appointed tax commissioner, with headquarters remaining at Richmond. **W. A. McClintic,** assistant to general manager, Northern region, has been appointed tax commissioner, at Detroit, replacing **R. W. Mason,** who has resigned to become manager—tax consultant of the **Michigan Railroad Association.**

R. R. Rathfelder, staff assistant at Cleveland, has been appointed personnel officer—finance department at that point.

ERIE.—Headquarters of **Frank B. Wildrick,** superintendent of property protection and fire prevention, have been transferred from Cleveland to Jersey City, N.J. **R. P. Steen** has been appointed assistant superintendent of property protection and fire prevention at Youngstown, Ohio. The positions of chiefs of police at Jersey City and Youngstown have been abolished by the road.

Elston A. Blair has been appointed supervisor of stations and car service, Kent division, succeeding **F. G. Hill,** promoted.

George H. Smith, assistant treasurer at Cleveland, retired June 30, after more than 51 years of service.

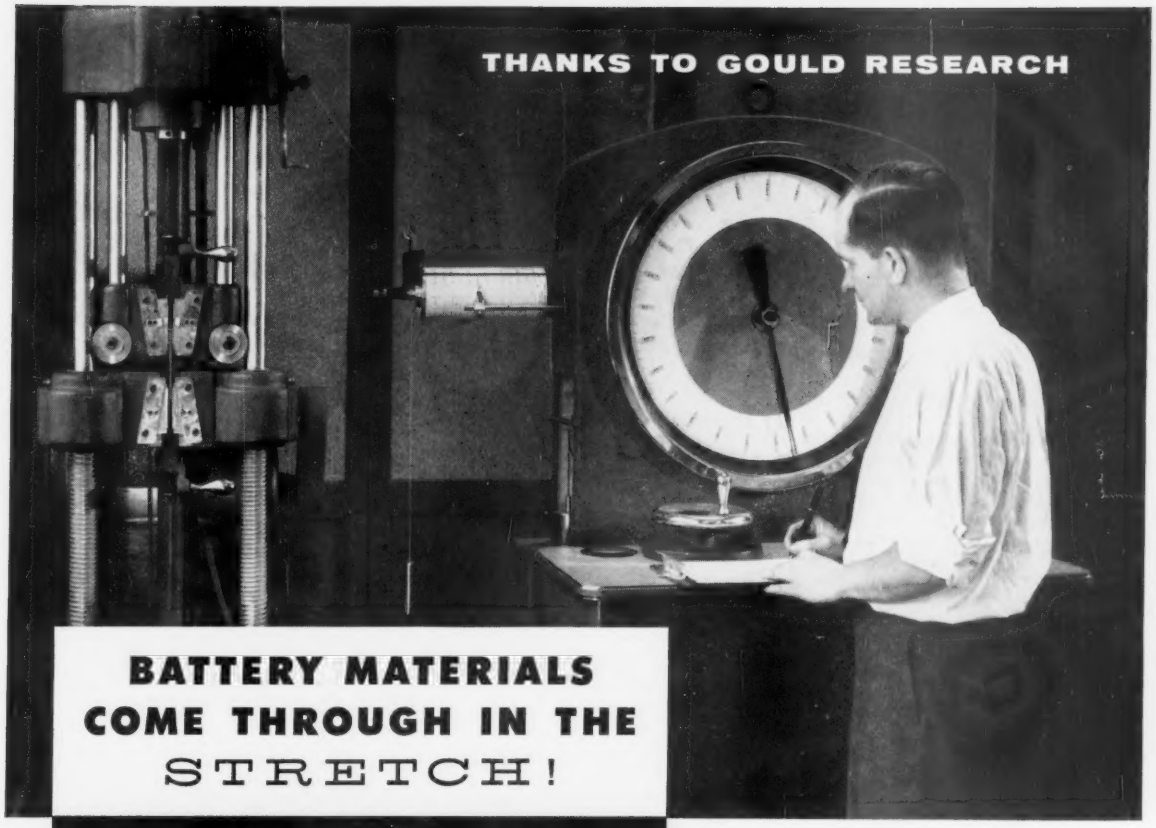
GREAT NORTHERN. — J. J. Boettner has been appointed assistant to general superintendent transportation at St. Paul, succeeding **H. W. Fish,** who has retired after more than 45 years of service.

ILLINOIS CENTRAL. — As reported in *Railway Age* June 20, **Bernard J. Grenrood,** general passenger agent at New Orleans, has been appointed passenger traffic manager at Chicago. Mr. Grenrood joined the IC in 1938 as a ticket salesman. In 1946 he became city passenger agent at New Orleans and in 1949 was named general passenger agent. Prior to joining the IC he had served with the Texas & Pacific-Missouri Pacific Terminal Railroad.

Bernard J. Grenrood

CANADIAN NATIONAL.—O. E. Berringer, superintendent of terminals at Winnipeg, has been appointed general superintendent, Saskatchewan district, at Saskatoon, Sask., succeeding D. E. Macpherson, who retired June 30, after 43 years of railroad service.

KANSAS CITY TERMINAL.—As reported in *Railway Age*, May 30, **T. W. Avery** has been appointed chief engineer at Kansas City, Mo. Mr. Avery joined the road in 1920 as draftsman, and subsequently held the positions of instrumentman, as-



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Shown above is a tensile strength testing machine in the Gould Battery Research Laboratory at Depew, N.Y. It is capable of exerting a pull of 10,000 pounds on any material. Gould uses it to make sure that every component of a Gould Battery—grids, connectors, posts, jars—has strength and ruggedness far above required standards.

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sistant engineer, and roadmaster. In 1951 he became engineer maintenance of way and in 1954 was appointed assistant chief engineer.

KANSAS, OKLAHOMA & GULF-MIDLAND VALLEY-OKLAHOMA CITY-ADA-ATOKA.—J. W. Klein, traffic manager, will retire July 1 after 45 years of service.

MAINE CENTRAL.—Kenneth W. Phillips, buyer in the purchasing and stores department of the **Boston & Maine,** has been appointed purchasing agent of the MC at Portland, Me. **James E. Mills,** traveling storekeeper, has been appointed general storekeeper.

MILWAUKEE.—Philip J. Cullen, assistant to vice-president—traffic at Chicago, has been appointed western traffic manager at Seattle, succeeding

Philip J. Cullen

Paul Wilson, who retires after 44 years of service. **E. W. Chesterman,** assistant general freight agent at Chicago, will succeed Mr. Cullen, and **Roy M. Olson,** commerce assistant

E. W. Chesterman

—freight traffic department, will replace Mr. Chesterman.

Mr. Cullen joined the road in 1925, serving in the freight traffic department at Chicago. He became assistant general freight agent in 1946, and

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Phoenix — 434 West Madison Street
Phoenix 3-6131 • B. F. Keyfauver

ARKANSAS
Little Rock — 417 Boyd Street
Little Rock 5-1246 • J. C. English

CALIFORNIA
Fresno 2 — 101 Van Ness Avenue
Fresno 2-4175
Long Beach 13 — 800 West 16th Street
Long Beach 70-2911 • C. A. Overlease
*Los Angeles 54 — 210 Anderson Street
Angelus 3-7282 • C. V. Kelly
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Glencourt 1-5451 • M. L. Wilkins
*Sacramento 1 — 1900 14th Street
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*San Bernardino — 655 H Street
• J. H. Gregerson
San Diego 1 — 720 State Street
Belmont 3-1361 • R. T. Redfield
*San Francisco 1 — 1750 Alameda Street
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Santa Ana — 301 French Street

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*Denver 4 — 104 Wazee Market
Tabor 7116 • H. E. Woodring

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West Hartford 6 — 453 New Park Avenue
Hartford 33-2631 • D. E. Sullivan
*New Haven 7 — 25 Union Street
New Haven 8-4163 • P. F. Lee

DELAWARE
Wilmington 3 — 1005-1007 W. Fourth Street
Wilmington 4-6245 • L. E. McIntyre

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*Washington 2 — 60 Florida Ave., N. E.
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*Jacksonville 1 — 12th & Main Streets
Jacksonville 6-7611 • D. E. Dodamead
R. L. Griffin
Miami 42 — 2111 North West 22nd Avenue
Miami 9-1614 • J. E. Powell
Orlando — 400 Pittman Street
Orlando 6133 • N. W. Upson
St. Petersburg 3 — 1900 First Ave. South.
7-4161-2 • R. L. Munro
Tampa 1 — 416 Ellamae Street
Tampa 2-7791 • A. P. Torres

GEORGIA
*Atlanta 1 — 333 North Ave., N. W.
Cypress 1751 • W. C. Brown
*Savannah 1 — 2601 Whitaker Street
Savannah 2-1121 • L. L. Black

IDAHO
Boise — 14th & Idaho Sts.
Boise 6315 • L. Maynard Smith

ILLINOIS
*Chicago 7 — 850 W. Jackson Blvd.
Canal 6-4100 • E. J. O'Donnell
F. D. Wilson
*Peoria 2 — 704 South Adams Street
Peoria 4-8211 • W. W. Smilde
*Springfield — 405 North McArthur Blvd.
Springfield 8-4084 • H. Bryson

INDIANA
Evansville 14 — 1709-1713 E. Columbia St.
Evansville 6-1357 • J. T. Young
Hammond — 6445 Indianapolis Blvd.
Sheffield 5830 • D. E. Clisbee
*Indianapolis 2 — 1300 W. 16th St.
Atlantic 2351 • R. W. Nelson

IOWA
Davenport — 206-210 East 5th St.
Davenport 3-2769 • J. M. Ferguson
Des Moines 9 — 24 Eleventh Street
Des Moines 3-8614 • L. C. Esthus
Sioux City — 510 Pearl St.
Sioux City 5-0189 • E. A. Bartlett

KANSAS
Wichita 1 — 424 No. Rock Island Ave.
Wichita 7-1366

KENTUCKY
*Louisville 8 — 624-628 Myrtle St.
Calhoun 5411 • T. E. Mahan

LOUISIANA
Baton Rouge — 2442 Ted Dunham Ave.
Baton Rouge 4-7093 • S. M. Lawrason
*New Orleans 13 — 1116 Magnolia St.
Canal 6263 • A. W. Wheeler
Shreveport — 90 Fannin Street
Shreveport 4-6645 • B. F. Benning

MAINE
*Portland 3 — Center & Commercial Sts.
Portland 3-1761 • H. J. Scully

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Saratoga 5050 • J. D. Rhoads

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Kenmore 6-4567 • T. A. Purcell
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Worcester 6-4311 • H. G. Rappel

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Townsend 8-5550 • C. R. Carlson
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Flint 2-4101 • W. A. Arthur
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Glendale 1-2561 • W. T. Bronson
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Melrose 6645 • D. A. Hilger
*Minneapolis 15 — 824 South Fourth St.
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Long Island City 1
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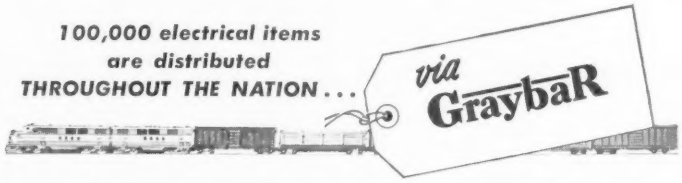


OFFICES AND WAREHOUSES IN OVER 120 PRINCIPAL CITIES

ROCK ISLAND.—E. L. Nylander, assistant superintendent car department, who has been named superintendent car department at Chicago (*Railway Age*, June 13, page 77).

assistant to vice-president—traffic in 1948.

PULLMAN COMPANY.—R. W. Schulte, assistant superintendent at Los Angeles, has been appointed superintendent at Houston, succeeding **O. S. Gaddis,** who has retired after 42 years of service.

RUTLAND.—James P. Dervin, vice-president—traffic at New York, at his own request, will be relieved of his duties, effective July 31.

SEABOARD.—E. L. Hobbs has been appointed general agent at Houston, Tex., and will handle solicitation and related matters in the state of Texas.

SOUTHERN.—Gordon L. Potts has been appointed district freight and passenger agent at Tulsa, Okla., succeeding **Harry B. Coogan,** who has retired after 48 years of service.

TEXAS & PACIFIC.—Clarence Percy, Jr., has been appointed trainmaster, Louisiana division, at Shreveport, La., succeeding **C. J. Mitchell,** transferred.

UNION PACIFIC.—William H. Hulsizer, general manager of properties at Omaha, retired June 30 after 45 years of service.

OBITUARY

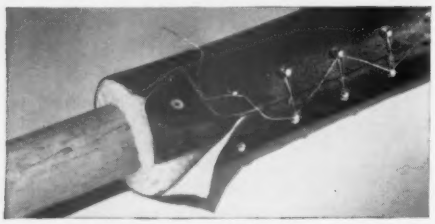
Stephen A. Williams, 74, retired vice-president of the **Gulf, Mobile & Ohio,** died June 25 at Evanston, Ill.

Thomas K. Earley, 55, general freight traffic manager of the **Denver & Rio Grande Western,** died June 25 at Denver.

Arthur H. Keys, 55, superintendent car department of the **Baltimore & Ohio,** died of a heart attack July 2.

Seal with J-M Packings and Gaskets . . . Whether your service requirements are usual or unusual, your equipment can have tight, long-lasting joints. Johns-Manville offers you a choice of many packing and gasket materials to meet your requirements.

Repair refractory lining with Blazecrete® . . . For heavy patching by troweling in high temperature equipment this hydraulic-setting refractory eliminates ramming and tamping. Firecrete®, a companion refractory, is used to cast special shapes and linings ready for use in 24 hours. Shrinkage and spalling of both materials is negligible.



Cover car heating pipes with Thermo-Wrap®... This improved lace-on type pipe insulation gives maximum protection to heating lines throughout the length of the train. It is easy to install—fits tight and stays tight—withstands the impact of rain, sleet, snow and flying ballast.

Apply Flexstone® Roofing . . . Each ply of this asbestos roofing is a flexible covering of stone. It is fireproof and rotproof. Its asbestos felt construction provides a smooth surface and eliminates recoating.

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for peak performance, longer life and lower maintenance costs

HERE ARE 5 ways you can pare your maintenance costs . . . with Johns-Manville products designed to stand up under the hard wear and tear of railroad service. Your Johns-Manville representative will be glad to give you complete information—or you can get all the facts by writing to Johns-Manville, Box 290, New York 16, N. Y. In Canada, address 199 Bay Street, Toronto 1, Ontario.

Use Transite® Pipe for waterlines . . . This asbestos-cement pipe cuts water line costs because it resists corrosion . . . withstands vibration . . . and because its high water carrying capacity helps keep pumping costs to a minimum. Its light weight and easily assembled joints simplify installation.

JOHNS-MANVILLE JM PRODUCTS **Johns-Manville** 97 YEARS OF SERVICE TO TRANSPORTATION

One of the 160 Uses of CONCRETE on Railroads

NO. 26 OF A SERIES

The concrete pedestrian tunnel shown below connects the parking lot with the yard office in the Norris freight classification and forwarding yards of the Southern Railway near Birmingham, Ala. The tunnel is located directly under the hump and is built of flat-base precast conduit in 6-ft. lengths.

Concrete pedestrian tunnels are just one of more than 160 uses of portland cement and concrete which enable railroads to improve service, provide greater safety, save time and money. The moderate first cost of such concrete improvements—plus their long life and low maintenance cost—result in *low annual cost*. This saves money for other necessary budget items.

PORTLAND CEMENT ASSOCIATION
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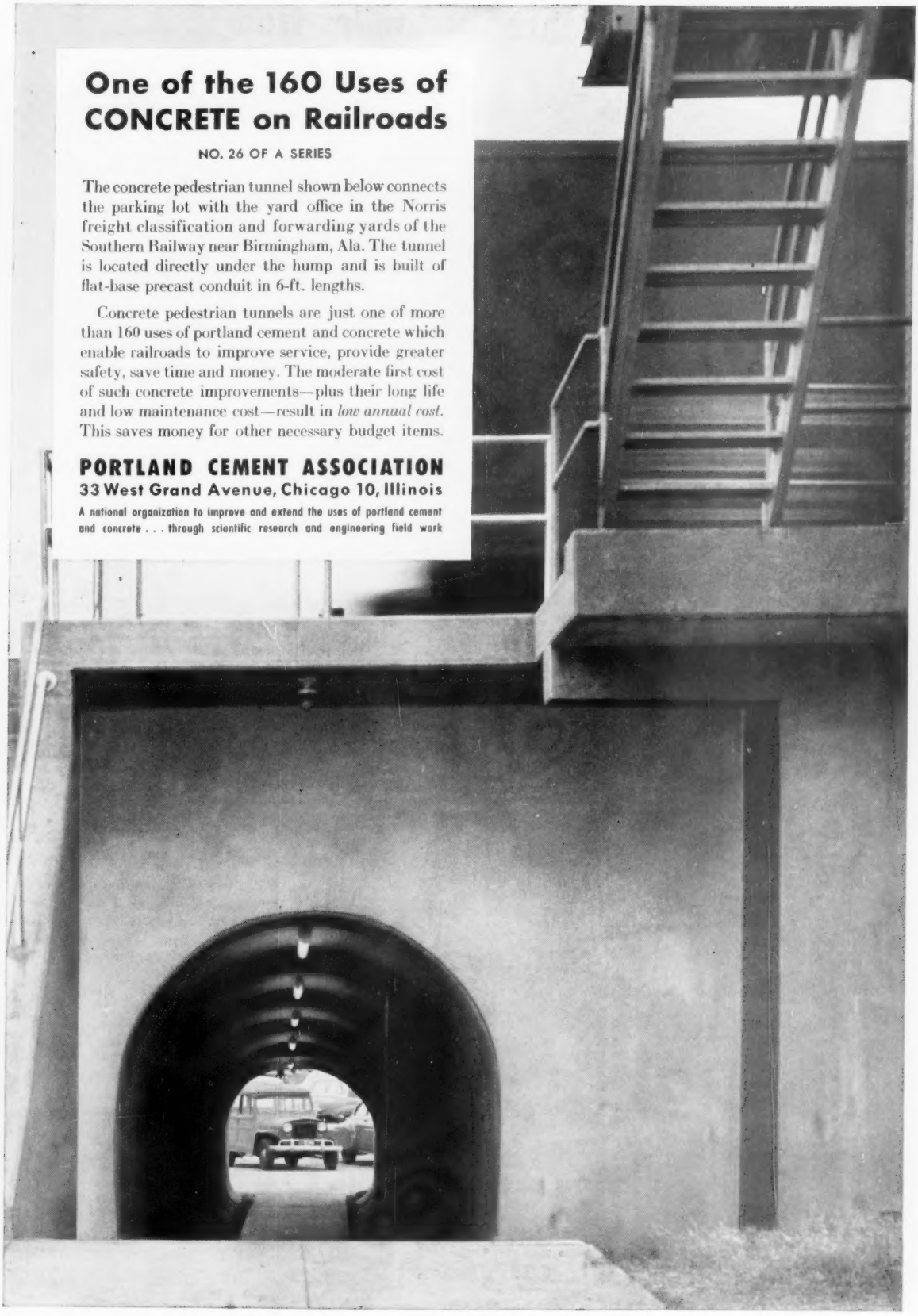
A national organization to improve and extend the uses of portland cement and concrete . . . through scientific research and engineering field work



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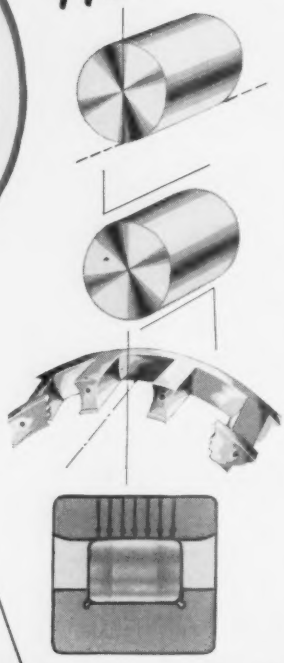

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precisely square to avoid end-rub, oscillation and side-shock.

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precisely parallel to promote unwavering right-line rolling.

RIGHT ANGLE SEPARATOR SLOTS
precisely machined to prevent roller skew, slide and uneven wear.

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with carefully selected crown radius on roller ends to distribute stresses uniformly and increase capacity.

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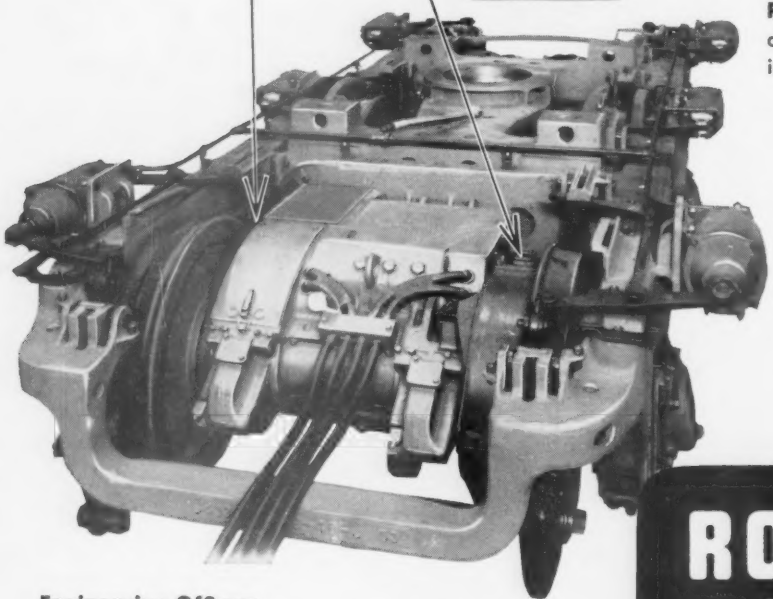

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COMPLETE LINE OF RADIAL AND THRUST CYLINDRICAL ROLLER BEARINGS

*New KEM KOLD BILD being applied on new cars at Berwick, Pa., plant of A C F Industries, one of several leading car builders using this new one-coat spray material.

Now two-coat protection with <u>one</u> cold-sprayed coat...stencil in 2 to 3 hours!

Eliminate time for drying and application of second coat . . . save material and out-of-service costs! One full coat of new KEM KOLD BILD has the build of two standard coats using conventional spray equipment. It dries in 1½ hours and is ready for stenciling in 2 to 3 hours.

KEM KOLD BILD produces a dry-film thickness as heavy as 2½ mils. Good film flow with a minimum of overspray. And KEM KOLD BILD dries to a bright gloss that stands up under repeated cleanings and tough service. Doesn't lift or affect primers. No pinholing or bubbling from entrapped solvents during or after application.

KEM KOLD BILD is being used by leading railroads and car builders now. Why not arrange for a demonstration by contacting The Sherwin-Williams Co., Transportation Sales Division, Cleveland 1, Ohio.

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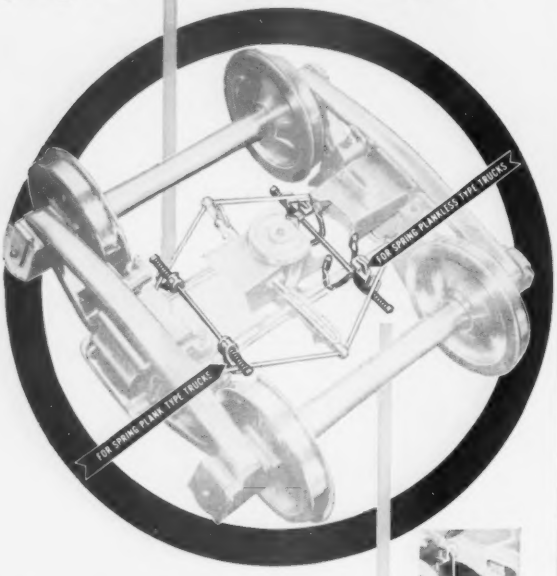
SHERWIN-WILLIAMS RAILWAY FINISHES

†Trade-Mark

in your rebuilding program

the GRIPCO Brake Beam Safety Support



gives added safety at minimum cost

SPRING-PLANK TYPE

can be designed for ANY Brake Beam

The Gripco Brake Beam Safety Support provides the greatest safety at lowest cost. Its dependability has been proven over years of actual service. Gripco Safety Supports are low in original cost, low in application cost and low in maintenance cost, even after years of service.

SPRING-PLANKLESS TYPE
(Safety Loops Included)

1. Supports the brake beam in event of brake beam or hanger failure.
2. Holds brake beam in horizontal position.
3. Holds brake shoes in proper position in relation to the periphery of the wheel.
4. The brake release feature pulls brake shoes away from wheel contact instantly when brakes are released.
5. Prevents unnecessary wheel and shoe wear caused by dragging brake shoes.
6. Gripco Supports can be removed and replaced without removing nuts.
7. Gripco Supports also function as a foundation brake gear control.
8. Brake Beams, rods and levers are held in position under spring tension thus reducing false movements, chattering and wear of parts to a minimum.

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Grip Lock Nut #1 | Grip Holding Nut #2 | Railroad Gripco Lock Nut

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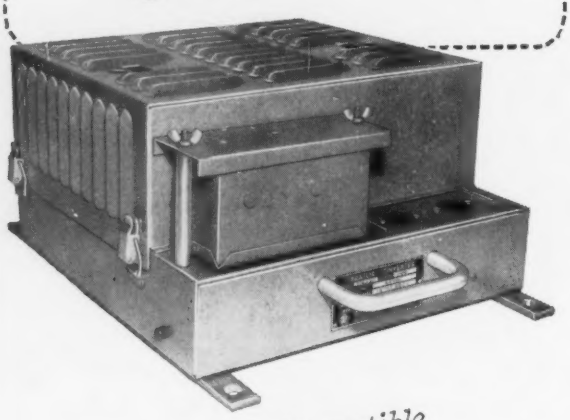
Another C-D first

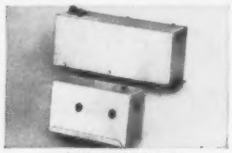


A New Low-Cost *Convertible* R.R. Converter

Yes, it's a new Cornell-Dubilier idea. Install the *single vibrator* economy Model 3600 converter *now* and convert to a *dual vibrator*, automatic switchover unit at any future time. Change over in a few seconds without tools.

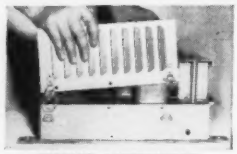
Same rugged dependability as the nationally famous "3200 Series C-D RR Converter" but priced for low cost initial (single vibrator) installation. 50% longer vibrator life expectancy.

Write for Bulletin EB-3600, Cornell-Dubilier Electric Corp., Dept. RA75, Indianapolis Division, 2900 Columbia Ave., Indianapolis, Indiana. Affiliated Member A.A.R.



CONVERSION KIT

Consists of Standby Vibrator and automatic Switch. Can be purchased whenever you're ready for dual vibrator service.



INSTANT ACCESSIBILITY

Trunk hasps afford quick access for conversion. Either RACK or BULKHEAD mounting, as ordered.

PLUG-IN CONVERSION

Field changeover like a vacuum tube. Kit can be plugged-in in minutes without tools.

COMPLETE UNIT

Available initially for dual vibrator operation factory equipped with automatic changeover feature.

CONSISTENTLY DEPENDABLE

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VIBRATOR CONVERTERS

For Industrial—Marine—Railroad and Appliance Services

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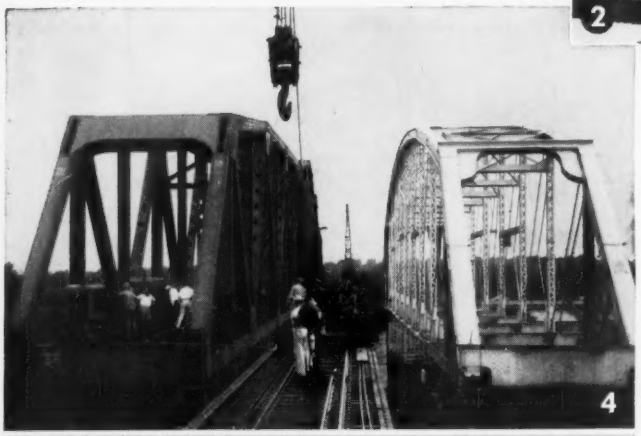
Traffic delayed only 31 hours on this unusual bridge replacement job!

1

2

3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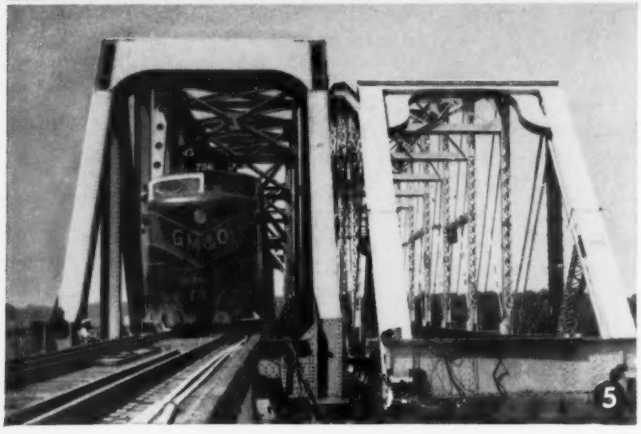
5

AMERICAN BRIDGE
floats new bridge onto old piers to give GM&O RR fast service!

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The project involved the design, fabrication and erection of the 450-foot bridge (consisting of a 275′ anchor span, a 58′4″ cantilever arm, and a 116′8″ suspension span) on the original piers, and the removal of the old, out-moded bridge.

The entire new bridge (picture #1) was erected on two barges (picture #2) and floated into a temporary position on pier extensions alongside the old structure (picture #3). The old bridge was then moved off its piers (picture #4) and the new bridge rolled onto the existing piers with new rails, crossties and new timbers in place (picture #5).

The changeover was accomplished with a traffic interruption of only thirty-one hours!

Handling unusual jobs like this with such ease and speed has made American Bridge the country's number one builder of railroad bridges. Whether your requirements are for a new line structure, or for an emergency repair or replacement job, American Bridge welcomes your inquiries.

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● In 1921, the New York, Chicago and St. Louis Railroad Company—best known as the Nickel Plate Road—began a program of replacing all untreated ties with pressure-creosoted material. Today, every tie in the Nickel Plate's 2,184 miles of track is pressure-treated.

Performance of pressure-treated ties has been so good that the Nickel Plate no longer maintains test sections of track. Checks on tie conditions are limited to yearly inspections, at which time each tie that needs replacement is marked for removal.

Nickel Plate's engineering department says it is getting 26 to 28 years of service from pressure-treated ties. That's 400 per cent better than the 5 to 6 year's life of untreated oak previously used.

Pressure-creosoting is the key to long, economical tie life. And for best results, specify USS Creosote, the uniform product of United States Steel's tar distilling operations. For complete information on USS Creosote, contact our nearest Coal Chemical sales office or write directly to United States Steel Corporation, 525 William Penn Place, Pittsburgh 30, Pennsylvania.

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